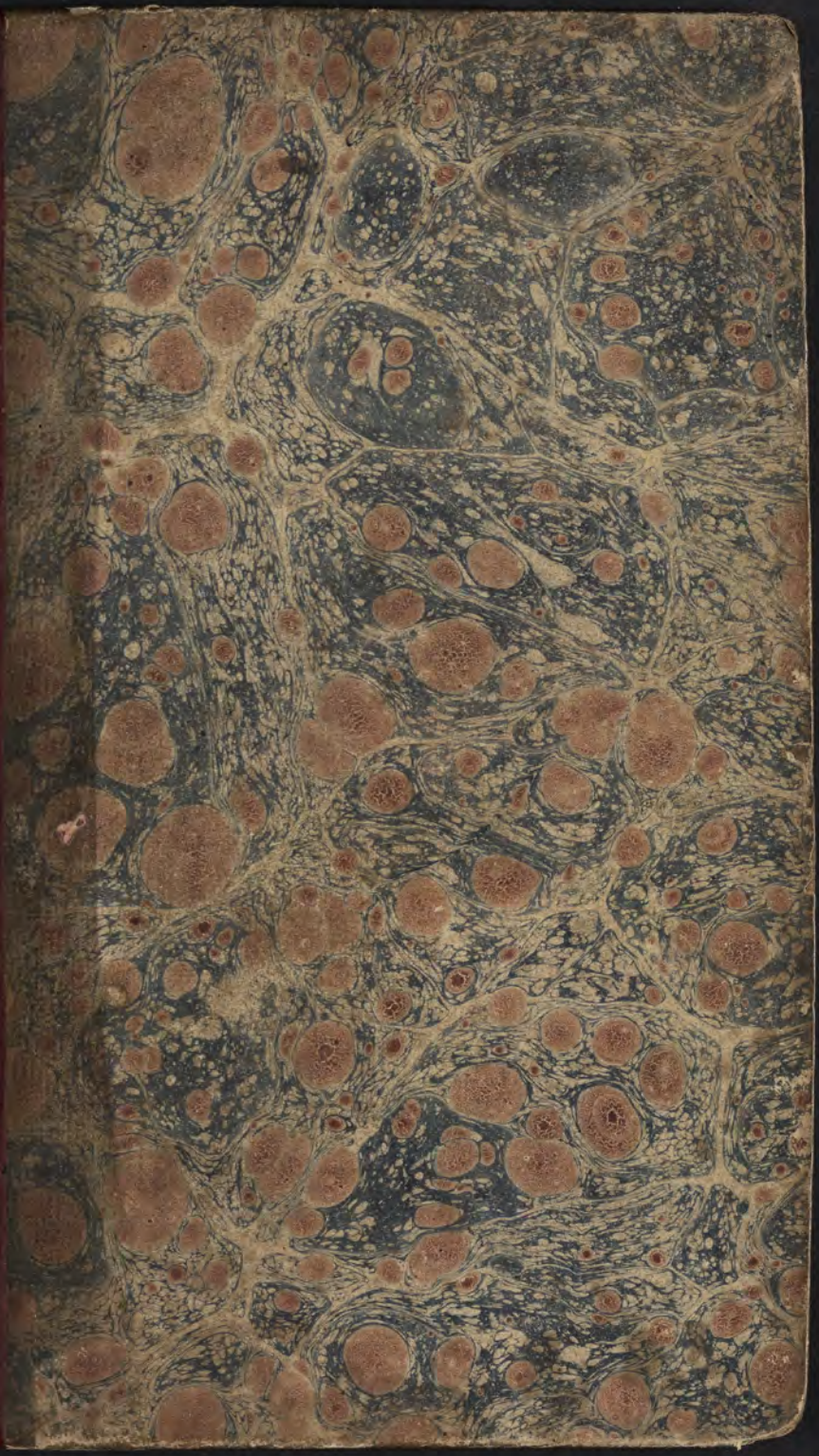

Edward Barton

Philadelphia April. 1815.

Lectures on Materia Medica

by

N. Chapman M.D.

Philadelphia Nov. 1814 to March 1815.

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Lecture 1st Nov. 8th 1814. . . –

On the means of acquiring a knowledge of the objects of the Materia medica; viz. Instinct. Sensible qualities of plants; their botanical affinity, Experiments on brutes &c, and Experience. See Dr Barton's lecture on the same subject, & Dr Cullen's Chapter on the means &c Vol 1st of his Mat. Med. . . –

Lecture 2d – Nov. 14th 1814. . –

On the Modus operandi of Medicines.

I begin this subject by laying down as a principle, that the operation of medicines on living bodies is different from their action on mere inanimate beings. this therefore leads me into a physiological discussion on the nature of life. Whatever be my disposition to speculation, I shall not indulge it, as it would lead me too far into the province of another Chair. It is evident to every one, that there is a wide difference between the properties of dead & living bodies; yet it is extremely difficult to say, what life is; whenever we see a body performing living actions, we say it is animate; but suppose these actions should cease, it does not follow, that life also ceases. It has been attempted to explain the nature of life by Analogy; thus, what a magnet is to iron, life is to the organised being; others have said it was "the mere effect of impression." These analogies afford no just explanation –

We have already said, that life does not consist in action, but life is the principle, & action the effect; thus before incubation, the egg has no action, yet it is certainly alive; it has the power of retaining its heat, which

Mr. Hunter considers as one of the Criteria of vitality. Also the germination of seeds exemplifies the subject very well; if dead, they would not, when put into the ground, & not germinate. — As soon as the egg or seed is placed in a proper situation, the vital principle, hitherto dormant, is roused into action & operates on these substances. — It is not an uncommon thing for organs to lose their action for a time, & recover it again; ~~that~~ "dormant animals, in suspended animation from hanging or drowning — the daughter of the Ruler, (Matthew. 9.) whom Jesus raised, was an instance of suspended animation; Jesus said, "The Sleepeth"; & "they laughed him to scorn" — here was no miracle however, & nothing but what may be done by human exertions in cases of suspended animation; for probably the maid was not dead; but the case of Lazarus was very different, for they said, "he stinketh".

The Physiologists of the present day are divided into two great or leading parties with regard to the nature of life. —

The 1st. is that life is a forced state, & not an original one; the works containing this system are in your hands; I therefore need not dwell upon it. Notwithstanding the ingenuity & the eloquence, with which it was supported by a late professor of this university, it is in my opinion replete with fallacy & absurdity — its Chief error is in ascribing to external substances a power over the System, instead of the System over external agents — There is also a

a palpable error in making health and sickness merely the effects of different degrees of excitement.—

I now proceed to the consideration of the second leading opinion, viz. that animated objects are possessed of a primordial principle, termed life, by which they are enabled to defend themselves against external agents & to act on them.—

Every animal (in health) has the power of acting on foreign substances & assimilating them to its own use. This property of the vital principle resides also in plants & their seeds— Whatever is taken into the stomach is there digested, assimilated &c. when the vital organs are unimpaired; but when by disease they are rendered incapable of acting on bodies, or resisting their action, all the changes, which take place in these bodies, are purely Chemical— Life is therefore a state, in which the system is enabled to resist external substances, & convert them to its own uses. It is the same with the "Sensorial power," the "nisus formativus", the "vis medicatrix naturæ", the "archeus", the "vis vitæ", the "vital principle" &c.

I shall here close my observations on life; I thought it necessary to say some-thing on it, by way of preparation for treating of the Modus operandi of medicine.

With regard to the action of medicines, there are two leading opinions, varied by different authors; 1st. that they are absorbed into the Circulation, & thus produce their effect; & 2d. that they act by Sympathy.

The first opinion is founded on the Humoral pathology, but is still maintained by many. Boerhaave supposed diseases to arise from acrimony, viscidity, tenuity or other defects of the blood, or from morbific matter, generated within or without the system — hence remedies were sought, which would act on the blood, & the good effects of all medicines were attributed to the changes produced in this fluid. — I believe the changes of the fluids to depend entirely on the solids, & that there is not the slightest proof that medicines are taken into the circulation. Chyle which is derived from the most diversified substances, always has the same properties & its analysis always affords the same result, & proves its identity of nature. Chyle, tho' some say it is a crude fluid, is however a very elaborate one & hath leading properties of blood: 1. it retains its fluidity in the living body, but coagulates out of it; 2. it coagulates at the same temperature as blood. 3d. It is composed of serum, coagulating lymph, & white globules, tho' much more minute than the red globules of blood. — I have no doubt that all the lymphatics, as well as the lacteals, have the power of assimilation, thus preventing the ingress of noxious matters — if inadequate to this duty, the glands, the sentries of the system,

by inflammation, arrest the offending sub=
=stances. I know that the odour of the garlic, & the colour of madder are sensible in the excretions of those, who eat them? — but they cannot be detected in the serum of the blood unchanged, tho' they afterwards discover themselves in the excretions. It is perfectly clear to me, that all sub=
=stances, taken into the stomach, are neutralized and reduced to a homoge=
=neous ~~[illegible]~~ and bland fluid; but in the excretions, they are out of the cir=
=culation, & beyond the sphere of the vital principle, and a chemical action takes place, & the substances reappear. —

Whether this hypothesis be admitted or not, certain it is however, that no substance can enter the blood unchanged; for milk, bland as it is, cannot be injected into a vein without producing fatal con=
=sequences. — Even pus, in the suppurating vein, produces the most dangerous symptoms, and even death. — the most extraordinary case of this kind was related by myself in the Eclectic Repertory — Vol 2d. This case was attended with the most singular sympt. the pat.t died in convulsions — A similar case is recorded by Mr. Hunter, & these are the only two I have met with. — Is it not then absurd to say, that acrid substances are carried unchanged into the circu=
=lation? the other opinion (sympathy) is certainly far more rational —

As it regards the operation of medicine on the living body, it is not necessary to have recourse to the Circulation; we have a far more rational theory in Sympathy.

Whenever a foreign substance is applied to the body externally or internally, an action is produced, more or less, in proportion to the diffusibility of the substance, & to the sympathy of the part, to which it is applied, with other parts of the system. Let me illustrate this. – You are all aware that some substances are more diffusible than others; & also that the degrees of sympathy vary between different parts of the body. Thus the stomach has the most extensive sympathy of any organ in the body. – If a foreign substance is applied to the skin, a set of actions is instituted, precisely similar. – as in the Smallpox, if the least particle of variolous matter is insinuated under the skin, it brings on a Concatenated series of actions precisely similar, & produces a crop of similar pustules – But if the action is communicated to another system, a new set of actions appear, the part primarily affected is the focus, from whence sympathetic actions emanate – this applies to the causes of diseases as well as to the operation of medicines –

Every portion of the body is capable of

these associated motions; but tho' we have this general medium of impression, there are however three surfaces, on which medicines & perhaps also the causes of disease particularly act; viz. the stomach, the skin, & the olfactory nerves — Each of these has an extensive sympathy with the other parts of the system; but above all, the stomach has far the greatest susceptibility, & the most multiplied and intimate relations. no organ of the body, not even excepting the brain, is to be compared with it in this respect. Destitute of a stomach, no animal can live; tho' life may remain without either of the other organs, thus fœtus have been found without brain, or spinal marrow, without lungs, heart, uterus, liver &c, but never without a stomach. — Also, life may be preserved under very considerable lesions of the other vital organs; thus patients often recover after the loss of portions of the brain; by dissection it is found, that in Hydrocephalus, sometimes little else remains, but the membranes, within the cranium, the brain being all destroyed, & yet life has not yielded, till this state had arrived. — We see people living with abscesses in the liver &c. Cold-blooded animals may live sometime without heart, brain, or lungs; but the slightest injury done to the stomach is almost always fatal. — the wound of a cannon ball, without any other violence, passing against the stomach,

has proved fatal; & no wounds are so dan=
=gerous, as those on the pit of the Stomach.
The Stomach is the receptacle for food, remedies & poisons; communicating their effects to the other parts of the system — "Languido ventriculo omne languescit." On the healthy state of the Stomach depends that of the Chyle, & of course the nourishment of the body; It is called by Aristotle, "the animal," by Van Helmont, "the Conscience of the body", & by others the "Archeus" & some have supposed it the Seat of the Soul. — Hunger produces a diminished action in the arterial system, a difficulty of respiration, faintness, pallenessy, languid secretion &c — such is its effect on the mind, that among Courtiers it is a rule never to ask a favour before dinner. But when hunger is satisfied, all these symptoms vanish, & circulation is restored, the pulse rises, the breasts swell, the respiration becomes free, the mind cheerful &c. Let me also recall to your minds the effects of improper food or excess; Colic — syncope — headache — palsy — tetanus — hæmorrhoids, & a long train of other diseases — What languor and disagreeable feelings arise from air pent up in this organ, & vanish when it is liberated! What symptoms are not referred to indigestion? & What diseases are not accompanied with a disordered Stomach? The close sympathy existing between the Stomach and brain is evinced from the effects of the emotions & passions of the mind on the Stomach — & hence the proverbial

saying, "I sicken at the thought"—
I might enlarge much more on this subject, but I think I have shown that the Stomach has a most extensive sym=pathy with other parts of the System, & have thus indicated the Chief medium of sympathetic Connexion, by which impressions may be conveyed to various parts, without having recourse to the Circulation. (this regards only substan=ces taken into the Stomach)—

The Surface of the body is another part, by which the action of medicines is conveyed to the System— This has long been known, but till lately, no doubt was entertained of the absorption of these substances. Mr. Seguin in France, & Dr. Rousseau in this City about the same time first ventured to doubt it.— but the latter has the only merit, for he alone has proved (in 1800) by experiments what Mr Seguin merely hinted at.—

Dr Rousseau's experiments candidly examined prove, or at least render it probable that Cutaneous absorption does not exist in the natural & healthy state— the doctrine of absorption was almost abandoned, till 5 years ago, Dr Murpey clearly proved that madder was absorbed & appeared in the urine, when it was detected by an alkaline test (the vol. alk is the best test for madder) — Dr Rousseau has since made 200 or 300 experiments on all kinds of substances, mild & acrid, medicinal & poisonous, & found that

Catharticus – Vol. 2. p. 30. of mysteries. –

madder & Rhubarb are the only ones, that could be detected in the excretions; & neither of these could be detected in the serum of the blood, or any of the secretions except the urine.* he found also that there were only small surfaces, where these substances were absorbed, viz. between the middle of the arm & shoulder, & the middle of the thigh & hip. — topical bathing or poultices to any other parts gave not the slightest proof of absorption. Such is the present state of this interesting question. Enough however has been said to show, that cutaneous absorption can very rarely occur, & when it does, that it is not a natural action. — The surface being covered by the impervious cuticle, absorption can only take place in two ways: by friction, by which the matter is insinuated under the scales (for the cuticle is truly squamous), or by long continued bathing or maceration, so as to change the organization, of the part so much as to admit of transudation. — At all events it is not necessary to recur to absorption; we shall arrive at a much more correct doctrine, by adopting sympathy, & another source to be pointed out immediately — that the skin has a very extensive sympathy, it would be waste of time to prove. —

The discovery of pulmonary absorption would, I confess, invalidate the doctrine; but Dr Rousseau's experiments go far in rendering this doubtful, & prove that it is the impression on the olfactories,

*Rhubarb may be detected in milk, if given in disagreeable taste. See Barton's Therapeutics Cathartics. vol 2. p. 30. of my copy. —

and not pulmonary absorption, that must account for the various phenomena, attri=
=buted to the latter— Adverting to the fact, that when the smell was impeded by coryza, or other diseases, substances lost their taste, he instituted the following experiments. Jan. 10th 1810. He prepared a bath of 90° Fahr. strongly impregnated with tobacco; he remained in this a full hour, brea=
=thing thro' a tube the air of another apart=
=ment. No disagreeable sensations were perceived; he returned a few hours after to empty the bath; but in 2 or 3 minutes became so sick that he was obliged to run from the room; one of his children, who was very fond of the smell of tobacco, went into the bath, without experiencing any disagreeable sensations.—
Placing an infusion of tobacco over some fire, & closing his nostrils, he (for) breathed the fumes arising from it a whole hour, without inconvenience: his wife, who had a remarkable dis=
=gust for tobacco, wished to try the expe=
=riment; he consented, & she did the same without any disagreeable sensations— A strong Irishman with putty and adhesive straps on his nose breathed over it without any sickness; tho' the attendants were unable to stay in the room without vomiting.— these experiments show, that the sick=
=ness, or narcotic effect of the tobacco

were produced by the its action on the olfactory nerves. —

Dr R. then breathed the fumes of brandy, holding his nose; & no giddiness or other symptom followed; at the same time, a man much addicted to drink, became drunk by breathing the same fumes without the precaution of holding his nose. —

The Carbonic acid gas being known to produce very deleterious effects, Dr R. with closed nostrils, breathed over burning Charcoal, but no inconvenience was perceived. — thus we may account for the little injury the fumes of charcoal do to those who are accustomed to them, their olfactories being blunted by habit. Whereas if it produced its deleterious effects, by its carbon combining with the oxygen of the atmosphere, the effects would always be injurious.

I have attended many of Dr Thurman's experiments, & know him to be very accurate, & his experiments are well worthy of your confidence. — If the olfactory nerves are really the medium by which these effects are produced, it is a highly interesting fact in practice. —

A subject well calculated for an inaugural Essay. —

I have now completed what I had to say on the modus operandi of medicines; tho' I have not dwelt on it so much, as the importance of the subject would demand. Leaving therefore the preliminary subject, I enter directly on the Materia Medica. Dr Cullen & most others have divided the objects of the Mat. Med. into aliments & medicines. I shall not adopt this division, as it leads to no practical end; I shall treat hereafter of diet, as a means of preserving health & curing diseases. —

Much difficulty has always been allowed to attend the arrangement of Med. You will find a history of the various modes of arrangement in Barton's edition of Cullen's Mat. Med. — I shall only observe that every attempt to arrange them according to Chemical analysis, botanical affinity, or sensible qualities has proved unsuccessfull. — They all unite plants of different properties, & separate those of similar ones. —

As the objects of the Mat. Med. are studied only for their medicinal power, I shall arrange them according to their effects on the body. Even this mode is objectionable, on account of the deficiency of our knowledge of the operation of medicines.

Dr Cullen divides them into such as act on the solids, & those which act on the fluids —

The 1st are subdivided into those acting on the simple solids, as the astringents &c,

and those acting on the vital solids, as stimulants, antispasmodics &c.

Of those acting on the fluids some (according to him) change them, & some evacuate them — of the 1st are demulcents, which correct general acrimony & antacids, antalkalines, antiseptics &c, which correct local acrimony. — Of the 2d are emetics, expectorants, sialagogues, emetics &c &c. — Doct. Cullen has thus abandoned his own theory according to which fluids are never primarily diseased. — My most deliberate conviction is that medicines act only by sympathy, and that the fluids are only acted upon by impressions communicated to them thro' the medium of the solids. — Yet I wish it to be understood, that I am not among those, who suppose that all medicines are the same, except in degree, & strength — for I hold an opinion directly opposed to this, that no two agents produce the same action.

[1814. All medicines I hold to be stimuli, tho' some may not be sufficiently strong to keep the system at the point of healthy excitement &c. . . . .
1. Some are more diffusible in their operation, or general stimuli — as vol. alk. — spirituous liquors &c. These are transitory in their effect. —
2. Others are more confined, & more permanent in their effect. These are the local stim.

The general stimuli are 1° Incitants — 2° Tonics. The Incitants include antispasmodics & narcotics.

The local are Emetics — Cathartics — Diuretics — Diaphoretics — Lithontriptics — Sialagogues — Emmenagogues — Anthelmintics — Epispastics.]

(1813.) However various diseases may be, they may be divided into those which attended with increase & those with decrease of action.

And accordingly medicines are divided into those which increase (stimulate) & those which diminish (sedative) action. I shall subdivide these into subordinate classes. Under Sedatives come Emetics - Cath. - diur. - diaph. - Lithont. - Sialag. - Emmenagogues - anthelmint. - Epispast. and under Stimulants are Narcotics, Antispasmodics & tonics. — then come the miscellaneous: Diet; temperature &c. —

We must begin by understanding terms; All substances are no doubt stimuli, but some are inferior to the natural degree of excitement and of course much inferior to the diseased incitement. these are denominated Sedatives. — for the purpose of practice, the distinction is therefore sufficiently correct. Sedatives then are only an inferior degree of stimulants — There is another distinction which is not to be overlooked. Medicines differ much in diffusibility, and permanency of effect. Some act universally over the whole system — others act only locally, & produce a debility of action in every other part of the system as emetics &c. - we begin by these. —

Emetics are so important that it will be excusable to treat of them at some length. They were among the earliest medicines used; an instinctive impulse seems to have taught their use to savages & to brutes. — How abure therefore is the opinion of those, who object to the use of them, as unnatural —

Of the mechanism of vomiting little need be said.. the action of the stomach is inverted, the diaphragm & abdominal muscles act by association, & the upper parts of the intestines also have their peristaltic motion inverted — How is this inversion produced? They certainly stimulate, but why to this inverted action, we cannot say.

Doct. Darwin says they diminish the natural action of the stomach, till it ceases; when a new & contrary action takes place. — This is only saying an inversion takes place, but not how or why. — it is true it is sometimes excited by extreme languor or fainting; & whatever relaxes the system, renders the stomach more liable to this inverted action; but also many very powerful stimulants prove emetic.

Some suppose the stomach passive, but the experiments of Mr. Hayden of London are so conclusive as to leave no further doubt; they prove incontestibly that the stomach does act.

There is a peculiarity in emetics — all other medicines lose their power by habit, but emetics are the very reverse; this is so true, that after frequent emetics, the sight or even the mentioning of an emetic will sometimes by association produce the inverted motion. If an explanation of this anomaly were demanded, I would answer, that it was owing to some idiosyncracy of the stomach, rather than to any property of the emetic.

We have now to trace their effects; they evacuate the contents of the stomach, which is an object of no small importance; but their advantages do not rest here; the effect is extended to the duodenum, & while the diaphragm and abdominal muscles compress the gall bladder & liver, & drive the bile into the duodenum, this viscus throws it into the stomach, which evacuates it. — thus emetics increase the secretion of bile, & probably of the pancreatic juice. Nor is this all; concretions are forced from the ducts into the intestines; and jaundice is thus cured. —

— Dr Barton thinks, that a small quantity of bile always exists in the stomach, for the purpose of healthy digestion.

See Notes on B.'s Lect. (on Emet.)

Some however maintain, that the bile effects
was in the stomach before the emetic was
administered; but bile is not generally thrown
up till some time, and after repeated retch-
-ings and vomiting —

We have more than once expatiated
on the extensive sympathy existing between
the stomach and other parts, & especially with
the surface — thus one of the first effects of eme-
-tics is a great relaxation, & the extreme
vessels sympathize & perspiration comes on.
This effect is by some denied, because it is not
the uniform effect of all emetics; but there
is no force in this argument; it only shows
that some emetics have not so much affi-
-nity with the vessels of the skin as others.

The power of increasing absorption is by
some denied the emetics — Some contend that
it is by a direct stimulus on these vessels;
but I think it should be explained by the very
reverse — The absorbent action is always
strongest, when the force of the system & par-
-ticularly arterial action is much diminished.
Thus the emetics do not increase absorption
by stimulating the absorbent vessels, but by relaxing
the rest of the system — All however allow
the fact, that they do excite the absorbents to
take up pus, & often the water in Dropsies.

They act also on the Kidneys; whether
this is to be attributed to a specific power
of emetics, or to the quantity of fluids
drank, or to mechanical pressure, is
not determined — But as they excite the

absorbents, it appears to me, that there is no difficulty in explaining their action on the kidneys; for if water is absorbed in Dropsy, it must be discharged: —

They act also as expectorants — As soon as nausea comes on, a copious flow of saliva and a mucous discharge from the bronchiæ appears, & ~~their~~ increases, when vomiting comes on — this is evinced in Coughs, in Croup &c. where emetics are invaluable remedies. —

The sympathy of the head with the stomach is known to all — thus in many of the diseases of the head, Emetics are the best remedy. their impropriety however must be manifest, when any fullness of the vessels of the head exists, as they increase the tendency of the blood to the head, & ~~prevent~~ impede its return by the veins.

From this view, it must appear that Emetics are of the most extensive & universal utility. —

I will now lay down some rules to be observed in the administration of Emetics.

1.° When any plethora, particularly of the vessels of the head exists, venesection should precede the Emet.

2.° When the necessity is urgent, & a quick operation is desired, a large dose of the most active kind should be given. —

3.° In ordinary Cases, it is best to give them in divided doses — thus 4 gr. Emet. Tartar may be dissolved in 5 or 6 table spoons of water, of which one tablespoon may be taken every X or XV minutes, untill puking is excited; then encourage it with warm drinks — Cham. tea &c. —

4°. When the object is to make a strong impression on the system, no liquid should be taken; but if the object is merely to clear the stomach of its contents, large quantities of liquids will assist, when puking has commenced.

5°. It is generally better to give them in the morning, if convenient.

6°. it is somet. necessary to repeat them every day, or every other day, so as to imitate a sea boy &c.

7°. If the operation should be too violent, the best means of checking it is Laudanum Cordials — fomentations to the stomach — Sinapisms to the extremities — If all fail, an anodyne injection, & a blister to stomach. Sinapisms to feet are perhaps the most powerfull of all — Instances have occurred to me, which proved their extraordinary efficacy.

-(Half an hour will in most persons be too short a time before the paroxysm - An hour or an hour & half will often be necessary, in order that the vomiting should cease before the time of cold stage. - If tartemet., much shorter time necessary.
D. Pheysick.)

We are now to apply emetics to the Cure of diseases; In Fevers of every kind. Fevers generally commence with nausea &c, which indicate the disordered state of the Stomach; and here Emetics are of the first importance, and the use of them is obviously suggested by Nature. The Emetics clear the stomach of its contents, and prepare it for the reception of other medicines. They are not however always necessary, for the Stomach may sometimes be quieted by a saline draught, and a gentle cathartic. When Emetics are to be used, we must not forget, that if plethora exist, V.S. must precede them; by the neglect of this, many lives have been sacrificed; I have seen one case of Apoplexy & one of hæmoptysis brought on in this way.

Emetics produce a proper perspiration, which alone is often sufficient to subdue the febrile action. They seem particularly adapted to intermitts - they prepare the stomach for the reception of the bark, tho' some deny this. I cannot now stop to examine the question, but mere by observe that it is my opinion, that they are always useful & in some cases indispensable. I have repeatedly broken those tribes of associated motions, on which the paroxysm of an intermitt seems to depend, by exhibiting a dose of Ipecac half an hour before the expected paroxysm.

my own rule is never to administer tonics, without previously emptying the stomach & 1st. vice —

Puerperile Fever is so obstinate and so often fatal, that every thing respecting its cure, is worthy of attention. We hardly know the seat of the Complaint — my own impression is, that it is in the uterus, & by a sympathetic inflammation of the peritoneum — this I infer from dissection, & from its obstinacy; for inflammations of peritoneum are seldom cured & are the most obstinate of all inflamns. — But I reserve my opinions on this subject for another opportunity. —

Emetics were long ago recommended in Puerperile Fever, but their use subsided, till lately an English writer has again introduced them & says they maybe exclusively trusted: but this is the language of Enthusiasm — I have used them to relieve the most distressing symptoms — the stomach is loaded with something like black vomit, which produces the greatest distress, & if left in the stomach, soon reduces the pat. to a typhus stat. — To evacuate this, Emetics are necessary; & this is their only use in Sharp Fever, tho' nauseating doses may be employed in this, as in other Fevers. — (1814) I was called some time since to a woman in the 19th day of a puerperile F. with very improving symptoms; I gave an emetic, which threw up an immense quantity of dark coloured matter; the symptoms immediately abated, and she became Convalescent. —

Emetics are said to be useful in Dysentery and Diarrhea; these diseases were for

a long time considered as the same, but are now known to be perfectly distinct. (See Sir John Pringle) In Dysentery in the earliest stages, when the stomach is loaded with biliary matter, attended with nausea &c, they are certainly indicated but I have little faith in them, & should restrict them to those circumstances. — Richter of Gottingen says it is a Rheumatic Catarrhal affection of the bowels, and the biliary matter proceeds from an increased secretion of bile, being merely accessory & accidental & by no means having any influence on the disease. As extraordinary as this theory may appear, it is rendered plausible by his cases & reasoning. — From this supposition, he gives nauseating doses of Opium & antimonials, to excite perspiration; an emetic dose at first, if the stomach require it. — With some modifications I have followed this practice, and have reason to be satisfied with it.

Diarrhoea depends on such a variety of causes, that it is difficult to say when emetics are required. but whenever it is accompanied with a loaded stomach, emetics are indicated — When the disease is obstinate and protractive, emetics may diminish the peristaltic motion, besides producing diaphoresis. —

When Dysentery or Diarrhoea assume the instant form, the treatment must be commenced with an emetic. —

In Dyspepsia, Hysteria & Hypochondriasis, emetics are very useful; the reason is obvious from what has already been said. Hence they are used in indigestions, headaches, lowspirits, heartburn &c. as to the peculiar properties of Ipecac, hereafter —

Emetics are undoubtedly of great utility in Dropsies; but as a general rule, nausea is to be preferred to full vomiting. Tho' the effect is not so great at first; it is more lasting and uniform.

When Dropsy proceeds from obstruction in the biliary system, the emetic operation is useful by inducing relaxation; - also in Jaundice, obstruction of the ureters &c.

I strongly advise them in intermittent dropsies. The use of emetics however is chiefly limited to Ascity and Anasarca; they are injurious in Hydrocephalus, & I suspect them in Hydrothorax. - - Both cases have lately been related of Hydrocele, cured by Digitalis & Squill in nauseating doses & one in this City by emetic tartar. these are worthy of notice. -

Richter says Emetics are peculiarly beneficial in those Case of diabetes, contracted in Countries, where intermitts prevail. I never saw them used in such cases, but those of you, who live in those parts, may be able to give some information on the subject. I have no doubt of their utility, and our cases of diabetes are often cured by Dover's powder. -

In Hernia humoralis; Mr Hunter first observed this disease to yield to Seasickness; no doubt they are useful, but as there are other remedies, equally powerful & much less disagreeable, I have never used them -

Mr Hunter also speaks of them in Bubos; I think they might be serviceable in those of an inactive or indolent kind. -

~ [Dr. Physick says, this is no proof, for catarrh often comes on as suddenly as croup & is certainly an inflammation. but Dr P. has seen one or two cases decidedly spasmodic, & Dr Rush shortly before his death saw a similar one, in these the patient suffered under all the symptoms of a violent croup for 2 or 3 minutes, & then they subsided entirely, & 5 minutes after returned with equal violence. — but generally croup is an inflammation of the =

In most diseases of the Chest, emetics are highly recommended, particularly in the acute ones. – In Pneumonia notha, they are of the greatest value. In some forms of Asthma, when they are frequently repeated, they are found eminently useful. – They are not so much recommended in Phthysis, as emetics, but as nauseatives, they check the fever, & render expectoration and respiration more free; but unfortunately "haret latens lethalis arundo".

In Pertussis, they are the only medicines I have ever used in the 1st stage with advantage – If the symptoms are violent, they should be repeated daily; at least in Children; for older persons cannot bear the repetition so well – I prefer antimonials in this disease, but many prefer white vitriol – Dr Kuhn the most experienced physician in this city, is of the same opinion with regard to the utility of emetics, but gives a decided preference to the wh. vitriol; because, he says, it is both emetic and antispasmodic. – After the 1st stages, a watery solution of Asafetida is very useful – Some use the wh. vit. even in this stage, more however as a tonic, than as emetic. –

In Cynanche Trachealis emetics are indispensable; & in my hands have been equally successfull in both species. Authors distinguish the Spasmodic & the inflammatory Croup – Some deny the existence of the former, tho' I think it far the more usual form – A spasmodic contraction of the trachea is sometimes completely formed in half an hour after the first notice of disease.

2

= of the membrane lining the trachea & larynx.
this inflam^n, if not resolved by vigorous antiphlogistic measures, generally terminates by an effusion of coagulating lymph, which forms an adventitious membrane. If this be thrown up, the symptoms generally subside, but somet. the effort to do this, will cost the patient his life, by producing instant suffocation. In one case which terminated in this way, Dr P. found the membrane in a state of intussusception thus preventing respiration. — Hence any attempt to extract the membrane would be at the hazard of immediate suffocation.

But in some cases, the secretion of this membrane does not relieve the inflamed vessels, but for a time; the inflam^n spreads to the adjoining parts, & even after the membrane has been thrown up by pieces, the sympt. recur with equal violence. the inflam^n is no longer confined to the lining membrane, but the adjoining parts become tumid, and at last obstruct the passage of air. Dr P. dissected one case of this kind, in which the cavity was obliterated by the tumefaction of the superior part of the larynx* — Aware of the existence of such cases, he had advised forcing the passage by a firm bougie, & he thinks that if this had been done, or tracheotomy had been performed, the patient's life might have been saved. — But while the membrane exists, the operation would be doubtful in its effect, for if the membrane extends to the branches of the trachea, as it frequently does, it could not be successful. —

* Dr Rush, who attended this case, says he has seen several of the kind, & that they are uniformly fatal. —]
(Dr Physick's examination)

this could not be inflammatory, for inflamma-
-tion comes on more gradually. — In these
cases I have found emetics imperiously
called for, and large doses are required; for
in this disease, the stomach seems to lose
its susceptibility to impression. — I greatly
prefer the emetic tartar to all others, however
young the patient; it is the most powerfull:
but if it does not operate, bleed propurely; this
never fails to restore the susceptibility of the
stomach — last week I was called to a child
½ hour after the attack; in the course of an
hour, I gave it XV grains of emetic tartar with-
-out effect; I then put it into a warm bath,
& bled it till it fainted — by these means the
child was made to vomit, & soon recovered.
By this practice, I have never lost a single
case of croup, tho' I have been called sometimes
to cases almost desperate. —

In cynanche maligna, emetics are also
useful. A combination of calomel & Turpeth
mineral has been much recommended;
but I prefer the antimonials to all others.

They are thought beneficial in diseases
of the head, even in apoplexy; this disease
is seated either in the head or in the stomach;
this latter species is commonly brought on
by a surfeit, or some congestion in the stomach;
When this is the case, emetics are most cer-
-tainly indicated — The question has been
agitated whether the stomach is not always
the seat of this disease, & by dissection, it appears
that in a great proportion of cases of apoplexy,
the brain has not the smallest appearance
of inflam.n — but the stomach is found very
much inflamed, particularly near the pylorus.

Emetics have also been spoken of in Paralysis; I can conceive that they may be useful, from the Sympathy existing between the Stomach & brain.

In Epilepsy they are also useful; Dr. Fothergill thought that this disease also was seated in the Stomach; if so, Emetics cannot fail to be important remedies. – Given near the time of the expected paroxysm, if they do not suspend it, they at least shorten it, & abate its violence.

All the diseases of the class Neuroses seem to yield to these & to purgatives – Epilepsy, Chorea S^t. Viti, hypochond. Hysteria – Apoplexy &c &c. –

In hydrocephalus internus, I would not place much confidence in them; In the inflam^y stage, they would be of no service, & when water is collected, they might do injury –

Emetics are a favourite remedy in Mania, but I think nauseating doses are better, as they depress the arterial action, & muscular strength, without determining blood to the head. – These are sometimes better than bleeding – Mania is one of those diseases, in which the stomach loses its susceptibility to impressions, & of course large doses are requisite. –

In Ophthalmia Emetics are recommended, particularly in the protracted and obstinate cases; Richter has embraced the opinion, that all complaints of the eye have originate in the stomach. I am a convert to his opinion, as it regards some of the diseases of the eye – Gutta Serena, I think, depends almost always on the stomach.

— See also "Thompson's Lectures on Inflammation" Edinb.
(cases quoted from Dr. Wright's works, p. 497.) Page 97.

Mr. Lawson of London 1st. recommended this practice, & by his success, acquired the greatest celebrity as an oculist – he gave emetics & kept up the impression by nauseating doses, & Cicuta.

Mr. xxx of this City was subject to sparms of the stomach; one morning he arose blind with one eye, & the other saw all objects double and inverted – he remained sometime in this situation, the affection somet. alternating with the dis. of the Stomach – V.S. & other means were tried without effect. An Emetic followed by nauseating doses cured him perfectly. – Dr Physick & Dr Caldwell saw a man with violent colic, & the next morning found him totally blind; a drastic purge was given, & vision was restored. –

Emetics are used in the Smallpox, when the eruption is retarded. however they are non necessary in the 3d stage, when squills are particularly useful. also in the Cough after measles. –

Emetics are often used in acute Rheumatism, & if useful, it must be by the diaphoresis they induce – I should always premise V.S. – – Also Inflam.d Gout. – Dr Barton says they are more serviceable in irregular gout. –

In the Sick headache, to which delicate ladies are subject, they do more good than any other medicines. Ipecac is given as emetic, & after its operation, lime whey &c. –

In bites of venomous serpents –

In Luxations, strang.d Hernia &c, in fact in all cases when great relaxation is desired, Emetics are useful. For Dislocations, See Mr. Wilmer's case – Eclect. Repert. Vol. 1st. –

We shall say more of this, when on Emet. tartar.

Emetics have been employed in active hæmorrhagies; some say they are doubtful, & some injurious. Dr Robertson of Edinburg used them in Hæmoptysis, but his practice has been abandoned. However I have seen it terminate in more than one instance by spontaneous puking, & the worst case of hæmoptysis I ever saw, was cured by Digitalis, which operated as emetic; & the disease never returned. — I think them however very hazardous, when there is a copious flow of blood, & to be resorted to only in a case of desperation; but where there is only a slight raising of blood mixed with mucus, emetics are safe & often advantageous. They remove the blood from the lungs, relax the constriction of the vessels of the surface, & facilitate respiration & expectoration — Hence the use of the nausea marina. Even when emetics are not permitted, nauseating doses are given with the greatest advantage.

Many years have elapsed since they were first used in Menorrhagia. I cannot say any thing of them from my own experience — I hold Menorrhagia to be nothing else than Uterine hæmorrhage, and not an increased secretion of the Catamenia. Emetics may be useful in the robust by relaxation, but even in these cases (the most favourable for emetics) I prefer V.S. & then nauseating doses. This last practice was introduced by a Swede, and was used with success by the celebrated Berzelius, who gave gr.ss Ipecac q.s.h. & avoided every thing, that might induce vomiting. A Professor in Upsal goes so far as to say

that this mode never failed in a single case in his hands. Without going to this extent, I must say, I have great confidence in it in Ut. hæmorrhagy, but the cases in which I have used it were those incident to pregnancy, but as I suppose Menorrhagia to be the same, the practice will apply also to it: —

In micturi cruentus, emetics are said to be advantageous, but I think this wants confirmation; I know no authors of great respectability, who recommend them; if useful, it must be by the debility they induce. —

Lecture 7th Nov. 22d

We now proceed to the consideration of individual emetics – They are variously arranged, but I follow none of the arrangements of authors – I shall first treat of the vegetable and then of the mineral Emetics:–

Of the vegetable, no article has stronger claims on our attention than the Cephaelis Emetica, (the Colycocca Ipecacuanha –) a plant of the class of Pentandria & order monogynia – native of South America – There are several kinds of Ipecac, but the best is the ashe coloured & grows in Peru – it comes to us in small wrinkled pieces, externally brown, internally rather whiter – it has a faint smell, and slightly bitter taste – it consists of a gum & a resin – the resin is proved to contain the valuable qualities of the plant, but the property resides also in the gum. – The active matter of Ipecac is extracted by alcohol, & by vinegar – if made into a decoction, the strength is lost, for the active parts are volatile & dissipated by boiling. – It also loses its power by exposure in powder to the light and air. – The root consists of a dark grey cortex & a medullary heart – the ligneous part has been shown to be as active as the cortex –

Ipecac is the mildest of all certain Emetics. it evacuates the contents of the stomach without great action on the system – Much difference exists with regard to the dose – 1 grain will sicken some, while the Brazilians are said to take ℥i – but probably not of the strongest kind. –

the ipecac comes up by the 1st or 2d vomiting, and the stomach is left tranquil, unless warm water or some other tepid liquor is given. — Dr Cullen says X grs is the medium dose for an adult; this appears to me to small, & to produce repeated vomiting, ℥j is the dose for an adult, & this must be aquited by warm water &c. — When more activity is required, it is usual to combine 1gr. Tart. emet. with it, & this forms indisputably our best emetic. —

I have already under the head of Emet. ~~often~~ hinted at the use of Ipecac in hæmorrhages of every kind. it is decidedly the best of all emetics in these cases, & in nauseating doses is very efficacious. — It is however particularly in uterine hæmorrhagy that it is remarkable, & in this it is perhaps superior even to Sacch. Sat. but nauseating doses only should be exhibited, for if vomiting is produced, I fear, it will be injurious, as such a shock is followed by great reaction. — But do not understand me that this is always the case, for I have known it checked by spontaneous puking; there is however a great difference between spontaneous and artificial puking. —

The effect of nauseating doses of Ipecac is truly astonishing & like a charm — by what mode do they act? It cannot be by their astringency, for more powerful astringents do not produce the effects

nor can it be attributed to its antispasmodic power, for admitting ipc to be antisp.c, of which there is no proof, other more antisp.c med. do not effect it. – I believe they act by producing a relaxation, and thus diminishing arterial action. –

My mode of giving it in Ut. hæmorrhage is ℞ii gr. j. with Spicae grs iij. q.s. vel t.h. –

Distinct from its emetic operation, it is said to have peculiar power in intmitt. – Dr Cullen says, that a respectable friend has broken the course of an intmitt by it; but I have done the same with other emetics, & even greatly prefer the Emetic tartar for this purpose. –

In Pulm. consumption also, it is inferior to Emet. Tartar –

In complaints of the alimentary canal, it is indisputably better than all other emetics. In Dysentery, after evacuating the contents of the Stomach, I use it as in Ut. hæmorrhag, in combination with opium. It is said to be peculiarly adapted to those dysenteries where there is a great discharge of blood; this may be correct, but I have found it useful in every form, especially if there is great pain and tenesmus. It has been used by the practitioners of every age & country, & all give their testimony in its favour. The modus operandi in Dysentery is unknown. It cannot be by its purgative effect, as Cullen supposes, for other purgatives are not equally efficacious, & moreover it does not good, when it does not purge. Mosely says it acts by producing relaxation and Diaphoresis – this I think more plausible than any other explanation –

In dyspepsia of long standing, Ipecac is highly extolled; I have given it in small doses, not even sufficient to produce nausea, with success. about gr fs. t. vel quator die. – in this way it acts as an alterative.

In Asthma it has a decided advantage over every other emetic: the use of it originated in Dr Akenside, who gave ℈j in the paroxysm, & 3 or 4 grains every morning. he thought its good effects were produced not merely by vomiting, but by its antispasmodic power. –

Combined with opium, it is a most powerful diaphoretic, as in the form of Dovers Powder.

It has been recommended in a vast number of other diseases, but as others have the same power, we shall not stop to consider them. –

Nicotiana. Cullen does not place this among his emetics; nor do I know whether it ought to be placed here, or under its other properties – it is a Narcotic, errhine, sialogogue, purgative &c as well as emetic. – It was originally confined to the Island of Tobago, but is now spread over the whole world. all its fascinating powers depend on its narcotic principle – As medicinal, its emetic power first attracts our notice. Dock Stedman for want of other emetics, gave it to the Hottentots in doses of grs vj, & found it very useful as an emetic in the fevers of that part. – It ~~to~~ is a very harsh emetic, but has some peculiar powers; However as emetic, I should not use it, unless driven to it by necessity, for it is a most violent one. It is said to be particularly adapted to evacuate poisons, which produce a torpor of the stomach, & which therefore require some violent medicine to act upon it. –

Externally applied, in form of cataplasm, to the Epigastrium, it often rouses the stomach & vomits — Dr Balton says he succeeded by this mode in dislodging a large dose of Laudanum (taken with a view to suicide) when white vitriol & other emetics had failed. — I think it acts on the olfactories & not on the skin! It is nearly allied to Digitalis and maybe useful where this would be. In some cases of dropsy, it lowers the pulse & shows all the effects of Digitalis. .. more of it under Diuretics. —

See Dr Fowler.

Scilla Maritima — this plant is of the same natural family with the Onion. it has a large squamous root — its leaves are broad, flowers spike. there are 2 varieties, the Red & the White — it grows on the shores of Portugal, Spain, Sicily, the Levant, Barbary &c. The Squill tho' formerly much used, is not now often employed as emetic — 6 grs. vomit. It is evaporated & long its power by ~~evaporation~~ decoction. 4 grains of the dry squill are equal to 20 grains of the recent, as this last contains much juice &c. —

Tho' not used as emetic, it is much employed for its other properties, particularly for its action on the glands & absorbent system. Combined with opium, Calomel &c it is much used in diseases of the chest — it is indispensable in Hydrothorax —

Lecture 8th. November 24.

In continuation of emetics, I must here mention an indigenous one, the Spiræa Trefoliata, or Indian Physick. A small shrub, growing in every part of the United States, even in the neighborhood of this city — The root is the only part employed, tho' the stems possess the same properties — The root is composed of a cortex & a ligneous part; both are emetic tho' the bark do most do. — I have never seen it used, but respectable authorities support it as a powerful emetic, & this I believe is the only property known to belong to it — the dose is about 30 or 40 grs, which gives a decided superiority to the Ipecac, the bulk being a great inconvenience —

There are several other vegetable emetics, but as they are not used, we omit them; it being my design to exclude all, which are not decidedly efficacious, & thus direct the science of a great mass of rubbish.

We proceed therefore to the mineral emetics. The antimonials are the first, & are very numerous; Antimony is a metal, naturally combined with sulphur, found in Hungary, Transylvania &c, & forming the native sulphuret of antimony; In this state it is inactive, tho' formerly much used. But among its numerous combinations, there are not a few very active & powerful medicines —

The medical history of antimony is interesting — Basil Valentine a monk of the — Century appears to have been the first, who introduced it into medicine.

Dorsey. — Friday. — Oblong as designation
Oedem. swelling of old man.
Incremental with it. (Effects &c.) Blindness. (all nervous)
(Acute hydrocephal.) (Filaria verminosa) Dr. Reed
to distinguish it from Remit. fever from other causes. Dr. Reed
& Butler deny it existence — Dr. Ill. TB
many of authorities. pung. & Dr. Ham. sup. in proportion to
pung. & Dr. Hebeler same opinion — Other med. which
destroy the life of the animal some mechan. irritants by Dol. —
Cath. then most effic. more to the — Calomel —
gr. impred of all compounds. (improp. in secret med, as
~~impor~~ dang. Sal. — strength &c) 4 to 5 grs old — 6 yrs old — (risk of secret)
Castor oil next morning — this to be repeated in int. of few days. —
Scam. Jamb. &c — fashion. auth. in London — 3 grs Cal (Ten drachm)
with Sulph iron 3vi &c — — Chenopod. authetic int.
tea in morning. odour nothing. take 3 days succ. & then
purge — interv. few days. & repeat &c — Ot.
drum used any rem. with wh. acq. ~~cost tobacco~~
acts more worms — hence small doses sufficient for
adults — Spigel. maryland. — All parts but root best
5 to 8 grs for 5 years — Fit. Zj for adult. — Infus. Zj for ch.
Zij for adult — Sp. — Parasite — but effect from Spig. itself
Dr. B. — sup. sequent. destroyed — do not trust — better to give
large doses less apt to prod. nerv. than small; only
correct or drug — best — give with Senna or other purg. —
(Gallaghat) & Impr. med. does not worm. ~~it~~ Sav. may (omitted)
Spig. Senn. & Savin
Melia azedarach — tracephall &c —
Candid. Helleb. fat. & Geoffroea inermis —
(Whytt's) Chalybs Dep.
Iron — very ill. form. respect &c — Pt. Steel Zij
Sal martis Dj. — Dio. Xll. — one every
Sulphate in pills
Ascarides. (Sequelæ) (Zjj common salt)
Sequel. of plumb. sometimes perhaps from combin. of them.
pung. aloes & calomel — Elim. of Picra & Canel

Eremuta - oil does not kill &c - &c - (slight of warm milk & oil)
Tobacco dang & not necessary. P.

Chapman — Friday — Dropsy.

Cantharis - in Cachectic or deprav. cond
prese. with very oppos. indic. - to promote inc
direct, or ~~to~~ reduced not easy
a allevi, cantt seem very
oppos. propin op. cond. of system - in St. of
high excitement most commonly producing
strang - but in ~~atte~~ reduced St. in large doses
as ref. wanting effects on urin organs.
Using in weaker forms of dropsy - ℥i. 2 or 3
times a day transf prod. as cop. dist
as I have ever seen, I never any irrit
of kidneys or bladder - When I hold it to
be very important in atonic not
only our observ. corrob by respect
auth - Hitherto by better mant. that
not slight degr. power of incr urin
secr. alone in neck of bladder most
prob. leading into error by giv. in imp.
doses or under improp circumst.
Ol. Juniper - pow - stim. direct to kid.
admit. of respice but should be in
small doses, ~~[illegible]~~ by incr. prov
purgat. - next Callcottus to find
that persuad - admir adapt to this
form of dropsy — Polyg. Seneca

the most praised by Sir F. Milman & others
still has not acquired univ. confidence
of Pharmacopœa — gaining ground — I
suspect ~~they~~ inf. by promiscuous use
Cantha: it is to be pointed out for
just admin. of the art. — I am convinced
that most effic in the cas. of purulent
dropsy depend. on enfeebled st. of the blood &
con. with cachectic st. — a mild, pervad-
ing stim. operating powerf. on all secret.
& excret. org. — diffus. its influence
on part of body, exciting abort.
healing efforts — its effic. inc. by
adding Bicarbonate Calcn. — in powder
or pill — gr. x to xx with gr. i Calc.
As a direct excited. action, Colchicum
autumnale — orig. introd. by Baron Stoerck
opponent in dropsy, cannot say much
myself — I suspect more had great repute
in England when British Cantha. — the
modes — Oxymel — (by Bar. St.) hourly dim.
3i. several times a day. — within last
20 years gen. attent. in cons. of
bas. of Ham. medic. — Sat. venous
tinct. — tea spfl. several t. a day.
Alliaceæ all act. — Garlic the
most powerful — reaction in many
instances — I suspect the apoth.
estab. by experience. — it is highly stim. &
diur. in weaker forms. Hydrocy.

In one case I have made it with great adv.
in dropsy from intemperance of cowa
con? with great debil. (In emp. of Cop. to drops)
I have never reached the close of diseases.
Diaph. another class of fluid. cannot
emp? in drops. - as the? Dict of St.
Dunn? St. of urin, St? Dropsy, Inflam
nevertheless amount - often effects Gre
Service - Extra - away - by skin Skin
fever & depriving Chanl = in Lungs
Dropsy by centrifug. of? relin vigour
& restor Ret equilibrium — Invert act of Gallbladder
Extend inflam — Jenning's batts. —
Fritty Rum to child
Cont. of op - cal & Dyes. — Emply
use of opium alone — Expator. Mx.
Mercury - better suited to ascites than anasarca
under circumst. the effects owing rather incl. affec. bathing of the abd
I have now comm? much to prem in liver and in dropsy
Serout resort to local ven - much relief
by evac. fluid - punctures by lancet - but not
too deep for Erysip. inf & gangren - often called
to remedy the affect? - Vital spirits impaired
Ferr - very frequently rather than prophyl
Phaecles - treatment exceed. embarrass -
blisters often the cause of the mischief
Cooper cannot be applied — What the
found most therapic in anasarca most is the flannel
flannel roller above & below

Emmenagogues.

Ammonia — 2 air — Retent. Suppress. —

pleas. sens. — (Dark blue) — &c. &c. — Var. Symptom. Acid by mouth

Suppression (interrupt.) — fol. cond. often — most freq. cause —

then climate & certain ? Cold &c. — When prov. cold, ut. fol. —

when prov. other causes &c. — Emmenorrh. &c. —

Emmenagogues. speed mens. & divers in prop. —

remain ort — ut. or head — Also acting on rectum,

gently carried most prosper. — (Dr Gallagher. about carb. ferri) —

(Hooper's pill) — Helleborus niger. (cur. in tincture)

gt. xxx to teaspfl. — &c. — D. Mead ? melampod. —

Cullen has no conf. — D. Phys. xxx. a day for few days before

Period of direct. — attention semicupium & friction —

perhaps equal to any other, but still freq. fail. —

Somet. acts as emmen. without purging. —

Genian. — Dr Dewees. vol. tinct. &c. I have often tried

it emmen. in one inst. has succ. —

Polygala Senega — Hartford & Chapman

Ergot — has been successf. in many most obst. cases,

in our public institut. —

Savin — Abortio — &c. (Soot very common emmenag.)

Compress. of fem. art. — Dr Franc. Home — I do not

know that any good effect. &c. —

Mercury. often acts as alterative — Var. prep. of Iron.

(object. to cinchonism after prod. colic, when in large quant.)

the iron simply acts as tonic — after a course of purging

Min. Waters &c. —

Dysmenorrh. &c. — often speed. dis. of mens. always

Symptom. of gen. disord. — Tonics best purgds.

during pur. cy. Wurbach Min. glyst. & if bear, V.S.

Emma — Stain start with 50 or 30 gt. laud. —

notwithstanding wrong effic. of this pract
c. not unfrequently stagnant & we must
not resort to direct med. — but
recollect we are still inflam

— foment. &c — Cure notwithstanding diet specific &c a
healthy st. of system — Gl. become irregular,
before sup.n — (25 years) predisp.d to inflam (or st. of flett. cond.
— low diet generally to cond.t to females at this period, &
attent. to avoid costiveness. Diarrh. large major of cases
when menses cease — Ulcer in legs. may stop, & purge
for 20 years —

finding that it did not injure hogs, he gave it to his brother monks, but with a different effect, for they all died; hence it was called antimonk, & corrupted Antimony. Bas. Val. to defend it, published a work, entitled the "Currus Triumphalis Antimonii" — the medicine however urged its way with great difficulty into the practice of physick, & soon fell into disrepute. — It was again revived by the eccentric Paracelsus; Among the contending parties of the day, by some it was received, & by others rejected. Thus in Paris, an act was passed, prohibiting, under pain of a severe penalty, the use of this mineral throughout France. — It continued however to be used, till it was supported by Hoffman, & still more by Cullen, since whom it has come into universal practice —

There are three divisions of the antimonial preparations — 1. the metal combined with Sulphur — 2d. with oxygen & 3. a salt formed by its union with an acid. Under these heads, there are several hundred preparations, of which only a few will be noticed here. Of their chemical composition we shall say still less. — It may be remarked, that all of them, tho' they differ in strength, have nearly the same general properties. —

Emetic tartar, the antimoniated ~~tartrite~~ of potash, is the most used in England & in this Country — Dr Lordyce says it was introduced by Dr Cullen — It is indisputably superior to every other antimonial preparation — It is unrified, inodorous, colourless & is

given in a minute dose. hence it can be exhibited when no other emetic can be, as in children &c. — It possesses in an eminent degree all the properties of the antimonial preparations. — As emetic it is distinguished by its certainty, strength, & the permanency of its effect. It produces in a great degree all the effects of antimonials — When the stomach is to be completely emptied, nothing is preferable to it. — When given in large, or repeated doses, it purges, which adds much to its value under certain circumstances. It is frequently diuretic, expectorant, & almost always diaphoretic — To puke actively, from 2 to 5 grains are sufficient, with some tepid drink. To avoid puking too violently, 5 grs may be dissolved in 6 tablespfls of water, & one taken every X minutes, untill it operates; it is then to be assisted with warm water &c.

While the English & Americans rely so much on Emetic tartar, the French prefer the Golden Sulphur of Antimony, and the Kermes Mineral — the former is an oxyd of antimony with sulphurated hydrogen, & sulphur. dose from 3 to 5 grs. — the Kermes mineral has the same properties, & the dose is the same. — Experience shows that these have no advantage over Emet. tart — & are often precarious in their operation. —

The Pulvis Antimonialis, of the Edinb. Dispensatory, is much used. — from 5 to 8 grs act powerfully as emetic, cathartic, diaphoretic &c, but not more so than Emet. tart.

From analysis & its effects, it is said to be the same as the celebrated James' Powder. An oxyd of antimony with phosphate of lime. but James' powder is said to salivate sometimes; if so, it probably contains some mercurial preparation. It lost its reputation before I came into practice, but I saw it used occasionally in England. —

The Antimonial Wine, as now prepared, is a solution of Emetic tartar in wine; which is a convenient mode of administering it. It was formerly made by a solution of the glass of antimony, but this mode is objectionable, on account of its uncertainty. the glass of ant. being only soluble in acid, the strength of the wine of ant. must vary according to the degree of acidity in the wine. In the Edinburg dispensatory ℥i wine contains grs ij Emet. tart, & the whole is a dose. — In the London Disp. ℥i. contains grs iv. & ℥ss is the dose — for an infant soon after birth, 2 or 3 drops are sufficient, 15 or 20 to children within the year — but in Croup the dose must be much larger; even a teaspoonfull is often requisite —

These are all the preparations of antimony worthy of your attention.

The Emetic tartar concentrates in itself all their properties; we shall therefore speak only of it, in the application of antimonials to diseases; & we shall dismiss the subject in a few words, as we have already anticipated much.

In Febrile affections; it is given first to evacuate the Contents of the Stomach, & then in nauseating doses to excite diaphoresis. it is used both in Continued and intermit. fevers; in the last when given soon before the expected paroxysm, it often breaks the Course of the Fever — Dr. Cullen first introduced it in fevers, & its use soon became universal. its modus operandi is uncertain; Dr. Cullen thinks it acts only by producing vomiting or nausea. — Dr Fordyce (Sir George) says it has the greatest effect, when neither is produced. — It certainly sometimes produces good effects without either, & I am inclined to think the truth lies between them. —

In inflammation it is highly useful particularly after V.S., & Continued with opium & Calomel. —

In Dysentery I have used it with less success than the ipecac. — Sir Geo. Baker however & some others give their testimony entirely in favour of Emet. Tartar; and such men's opinions are entitled to great weight; yet from my own experience I cannot but think Ipecac preferable to it. —

In eruptive diseases & all diseases of the skin, it is recommended. — In the fever preceding the eruption of the small pox it is of the greatest use. —

Where extreme muscular relaxation is required, emet. tartar is employed; hence its use in Dislocations &c. —

I believe it might also be given with the same view in some cases of strangulated hernia.
In Tetanus I have used it with great success; a Frenchman was admitted into the almshouse for tetanus; his jaws were completely locked; not being able to give anything by the mouth, I ordered ℥ss. Emet. Tart. in ℥ij warm water to be injected every hour. after the 2d injection he conversed with ease, & a cure was effected by ℥i of Emet. Tart, as enema.
It is used also to produce a relaxation of the uterus in difficult labours with great benefit. – It is common for women to be delivered in the last stages of fever, & in fact, it pregnant women seldom die before delivery – in Pulm. Consumption labour is remarkably easy; in the same way, I believe tart. emet. facilitates labour, by producing a relaxation of the uterus.
Emetic tartar has lately been used praised in certain gonorrhoeas, particularly when too acrid astringents have been injected into the urethra. –
It is also of great use in poisons; Dr. Rousseau was labouring under all the symptoms of poisons from eating pheasants, which had fed upon laurel berries; he was cured by injections of Emet. tart. as used in the case of tetanus mentioned above.

We are now to mention some others of the mineral emetics, tho' of minor importance.

The preparations of Copper afford us many powerful emetics, but the only one in use is the Sulphate of copper. It was not given by Cullen with a view to its emetic effect, but in nauseating doses as a diuretic. — Much has been said of it in incipient Phthisis. Dr Simmons of London gives it to excite vomiting every morning, & many suppose the advantages of a Seavoyage may be thus obtained from it. — I know nothing however that particularly recommends it; it is said that its action is purely local, & does not produce relaxation as Ipecac does, & still more Emet. tart. If this be true, I suspect, that it is not beneficial in Pulm. Consumption, for in this disease, emetics are only resorted by equalizing arterial action, & of course by acting on the System. —

In Cynanche Trachealis it is recommended, particularly by Southern Physicians, who say it acts as emetic, when others will not — if this be true, it is a great advantage, for nothing is more desirable than certain emetics. — Combined with Emet. tart. (2½ grains of each) it forms the famous dry vomit of Marryatt, once much in fashion, but I know nothing of it. —

As emetic, I am but little acquainted with the blue vitriol; confiding in others, I have been unwilling to substitute this for them;

but let not my scepticism, but your own experience guide you. Dose from 2 to 5 grs.

Many preparations of Mercury are emetic, & perhaps as certain as any others. Calomel produces all the effects of emetics; but Turpeth mineral is the only one much used as emetic. It was formerly used only for the purpose of salivating, but more recently has been applied for other purposes in many diseases; Combined with Squill, it is given in Cynanche Maligna, Dropsy & the Syphilitic swelled testicle — 5 or 6 grs of turp. min. scarce enters the stomach, before purging is excited. hence its use in poisons, to which Cullen limits it. There are 2 objections to its general use; it is too violent, & always salivates.

Corrosive sublimate has long been used as emetic, but not in general practice. its action is violent; but I am told it is used with success, in Croup by the practitioners of Maryland. I would however caution you against its particularly in Children. I am persuaded we do not need it, as the others will always puke, after the susceptibility of the stomach has been restored by V.S. & warm bath — (See above - page 25.) —

Of the Preparations of Zinc, the Sulphate is the only one used as emetic — X or XV grs prove very suddenly emetic, & hence are used for evacuating noxious substances from the stomach. Boerhaave thought it better in vegetable than in mineral poisons; why so, I cannot say. — Dr Cullen, who is not

friendly to any mineral emetic (Emet. tart. excepted) does not like this – he says its emetic & nauseating effects are too severe & too long continued. But others deny this, & Dr Moseley says that "white vitriol besides being safe has the advantage over all other emetics; for it never harasses the patient; it operates generally instantaneously & is as soon over, leaving the stomach strong & calm, & never causing spasms of the viscera, as emet. tart. sometimes does." From my own experience I should judge this somewhat extravagant, tho' I confess Dr Cullen is in the other extreme – It is indeed one of those emetics, which I have used with most advantage, & without any bad consequences.

White vitriol is of extensive use in diseases. Besides its emetic effect, it is used in Neuroses, but only I think in emergencies . . .

I formerly said it was preferred to all others in Pertussis in its early stages; because it is not only emetic but antispasmodic. –

In Cynanche Trachealis also, when violent, it is superior to any other except tart. emet. In slighter cases, Ipecac answers very well. –

White vitriol is the basis of the valuable preparation, known by the name of Moseley's vitriolic Solution :. Wh. vitriol ℥iij – Alum ℥i – Cochineal grs iij – Boiling water ℔j. the Cochineal is first to be rubbed fine in a marble mortar; the alum & wh. vit. are then to be added & triturated – then the water is to be poured on – & the whole set by to settle when cold, pour off the fluid. of this ℥ss is an emetic dose for an adult – but for nauseating

dose, a small tablespfull for an adult; & a teaspfull or pinch for a child 6 months old. — Dr Moseley says that whatever adds to its taste or renders it palatable, detracts from its virtue — nor will the same substance in form of pill, have the same effect.

In diseases of the bowels, particularly Dysentery, it is a most valuable preparation: it is the best med. except ipecac, & in many cases preferable to it. — Moseley says it should be given (in Dysentery) first without alum, to purge, & then with alum in nauseating doses, & at night an opiate with it. —

In Diarrhea of long standing, Moseley gives it every morning & night for months, omitting it occasionally for 2 or 3 days. at first let it vomit, but afterwards if it nauseate too much, lessen the dose, & if it gripe or purge, add Laudanum to it. —

In those cases of Colic arising from lead, after purging, this med. is eminently useful — ℞ ʒ ss. every 5 or 6 hours for several days.

In Angina maligna it has been used; but I know nothing of it. it probably answers a good purpose in throwing off the sloughs. —

In Pulmonic oppressions, taken once or twice a day, particularly in the morning, fasting; its effects are very salutary. In Catarrhal affections, Chronic pertussis. & Asthma. —

In haemorrhagy of the lungs, I know that nauseating doses of it give great relief; like ipecac, it diminishes arterial action, & the constriction of the surface, the cause of visceral obstructions. —

In Phthysis Pulmonalis, the opprobrium medicorum; some have more faith in it, when given in the early stage than I have: I am so fond of Ipecac, that I have not used this; but I am told that Dr Barton thinks Pulm. Consump. more manageable by this, than by any other medicine. If it has half the virtue ascribed to it, this solution is a most valuable medicine. –

Lecture 10th November 28th 1814.

Cathartics. We finished in our last lecture the subject of Emetics, & now proceed to Cathartics, which constitute a most important Class. The intimate connexion existing between the alimentary Canal & other parts of the system, gives to Cathartics a most extensive influence. They are such medicines, as increase the evacuations from the intestines, or excite purging. As this process is natural, & not accidental as is the emetic operation, these medicines merely assist Nature. They differ much in point of strength; some are mild & merely evacuate the contents of the alimentary canal without producing any effect on the system. Such are the laxatives. Others stimulate the muscular fibres of the intestines & cause an afflux of the secretions. And the drastic purgatives act with still greater violence. They affect the stomach & excite the intestines to a redoubled activity.

Cathartics have been employed in every age, & seem to have been pointed out by instinct. They are known among the rudest and most uncultivated Savages; yet their utility & the mode of administering them has not been rightly understood. According to the tenets of the Judicial astrology, it was once customary to exhibit them only under certain changes of the moon &c. This prejudice even now exists in a degree, & produces considerable inconveniences, particularly in Germany.

The humoral pathologists conceived, that a morbid matter was generated by fermentation, & that Cathartics expelled this; & that every fluid required a different Cathartic. hence the Cholagogues, the hydragogues, &c. — Their utility however is very certain, whatever may be the obscurity of their modus operandi. — We shall speak first of the general effects of Cathartics, then of their application to diseases, & lastly of individual Cathartics.

The first effect of a Cathartic is the evacuation of the contents of the intestines. — These viscera are subject to various accumulations, which bring on & confirm diseases. Cathartics not only discharge these, but also empty the stomach. Besides this, they increase the action of the exhalents of the intestines, & promote the pancreatic and biliary secretion; thus by producing a copious discharge, they diminish arterial action, & equalize excitement throughout the system. hence their utility in inflammatory affections.

Though their local action is undoubtedly stimulant their remoter & more permanent effect is certainly sedative. I am aware of the difference of opinion with respect to their action on the arterial system. Dr Cullen says that they increase the action of the exhalents, but in so small a degree, that they cannot produce by this means any great effect on the arterial system. This is certainly erroneous; but this is so generally known, that it is not necessary for me to dwell upon it.

Diseases ~~to~~ in which Cath.cs are indicated.

In Fevers of every form; the principle on which they act has already been mentioned.

they diminish and equalize arterial action, stimulate the exhalents &c. &c. They are useful in every stage of Fever. given in the incipient stage, they not unfrequently check its progress; during the course of it regular & often active discharges from the intestines are necessary, & far from diminishing, they increase the strength of the patient.

In intermittents, it is now customary to prefer them to Emetics, to prepare for the reception of the bark. the only reason for this preference is that they are not so disagreeable; but Emetics are often indispensable.

In remittents, Cathartics are equally useful, and more frequently necessary; they are employed daily to evacuate the bilious matter, & to bring down the force of the arterial system.

In inflammation with local determination, they are allowed to be indispensable, & without them we should scarcely be able to manage Phrenitis &c. I do not mean to deny the efficacy of V.S., but both are necessary, & they are more effectual, when conjoined.

Cathartics act also by Revulsion, i.e. by diverting the blood from the diseased part. — thus by increasing the afflux of blood to the descending aorta, they diminish the fullness of the parts depending on the ascending branches. thus in diseases of the brain &c. —

From the same principle they are essential remedies in all fevers attended with eruption, as in Small pox, Syphilis, Scarlatina &c. — (See page 50.)

Hitherto we have spoken only of inflammatory diseases; but in Typhus they have been newly introduced by Dr Hamilton, one of the first physicians in Europe, to whose valuable work we refer you for the relation of cases. It has long been treated by ~~bang~~ mild antimonials & in the more advanced stages by stimuli – Finding this practice unsuccessful, Dr H. had recourse to Cathartics, & with the greatest success. He says, that, after long giving his attention to the subject, he is now convinced that full and regular discharges relieve the oppression of the stomach and mitigate all the other symptoms. He believes they act thro' the whole tract of the intestines, carrying off the feculent matter. hence he prefers active ones, as Calomel & Jalap & gives them every day. he however does not exclude other remedies, but assures us, that since using Cathartics, he has had much less need for stimulants, & finds the disease much more manageable. –
This mode of practice has become universal in England, & indeed on the Continent, but in the U. States the Typhus mitior & gravior of Cullen does not exist. Our Typhus is very different; it occurs in very poor people & generally in winter – debilitated by cold, a slow fever attacks them, & lasts for 6, 7 or 8 weeks, having most of the symptoms of the Typhus mitior of Cullen – – The Typhus prevalent for some few years past in different parts of this Country, is a new disease never before described. –

In Phrenitis Cathartics are of the utmost importance – In Mania they are much

employed, always as an auxiliary. To show the influence Cathartics may have on the brain, I will mention that no diseases so frequently alternate as mania & bowel complaints. They in the Asylum, in many of the lunatics, mania has been removed, while they were labouring under the Dysentery.

In the inflammation preceding Hydrocephalus internus, active and daily cathartics are necessary. — In Apoplexy of the head (in contradistinction to what we have above called gastric apoplexy) Cathartics are the best remedies except V.S. — In Paralysis, of which I have seen many cases during the last year in the Asylum & elsewhere — I formerly used V.S. blisters &c & then stimulants, but finding these not successful, I threw them aside, & used the Cathartic plan, which has succeeded beyond my most sanguine hopes.

In the exanthemata — Such a close connexion exists between the skin & bowels, that cathartics are of the 1st importance in diseases of the skin — In Small pox they are next to cool air — In Erysipelas they must never be neglected; with them a wash of a watery solution of opium is very successful; I have found it much better than laudanum. —

In Scarlatina Dr Hamilton has also used them; indeed their utility in this dis. first induced him to use them in Typhus. — He says he never witnessed the revulsion (or vulgo, the striking in) from the use of Cathartics in Scarlatina. — The practice is novel, but certainly proper

Nor are they less useful in many of the cutaneous diseases without fever; indeed they are the only remedies used except topical ones. These diseases are sometimes seated on the very margin of vital influence, & therefore topical remedies alone can be useful; but they are generally more constitutional, & require purgatives - I refer you to Willan on Cut. Dis. -

They are indicated in most of the diseases of the alimentary Canal -

Costiveness. This is a relative term, for some require daily evacuations, while others can pass weeks, months & even years without them, & suffer no great inconvenience. Thus Haller relates a case of a person, who was 20 years without an evacuation from the intestines; & Dr. Rush used to mention a seacaptain, who never had a stool from the time he left port, till his arrival at the end of his voyage. he was a regular trader between this city & Europe. - The Costive habit however is generally attended with headache, vertigo, loss of appetite, nausea &c. - & its remote effects are a series of chronic diseases of a most obstinate nature.

Costiveness arises from a variety of causes, but principally from two 1°. want of irritability in the alimentary Canal, or 2°. from a defect of the biliary secretion, or some vitiated matters lodged in the intestines. Each of these Causes is to be removed by purging; the 1st. by stimulating purges, & the 2d. by Mercurial ones - of this we shall say more in treating of individual Cathartics.

Besides habitual costiveness, there is often a spasmodic constriction of the intestines, as in Colic &c. in these Cases purgatives are indispensable. - I will add only one practical remark; in some instances of intestinal obstruction, as in the bilious Colic, when Cathartics are ineffectual, large doses of opium will quiet the irritability of the stomach, & stop the vomiting; a short time after, the spasm ceases, & the cathartic acts - thus I order Opium grs ij - with Calomel grs X. or XV. so that as soon as the opium has relaxed the spasm, the Calomel may operate. -

Whatever be the difference of opinion with regard to Dysentery, all agree that purgatives are necessary in its Commencement. also in Diarrhœa whether from irritation or other Causes. -

In Marasmus - This disease usually appears soon after weaning - it has long been treated by bark &c, but I am Convinced that tonics are not the proper remedies. Different causes are assigned; some suppose it arises from worms, & some from obstruction of the mesenteric glands; but I think it proceeds from a torpor of the alimentary Canal, & all the Chylopoietic viscera. - My reasons for this opinion are, that the intestines are loaded, the liver is enlarged, & the mesenteric glands swollen - But the practice is the same, from ~~a such~~ whatever cause it proceed - if from worms, purgatives are our best anthelmintics; if from obstruction of the mesenteric glands,

cathartics are the best deobstruents, & if from torpor, stimulating purgatives are the proper remedies. —

There are in Marasmus two distinct stages, the incipient and confirmed. In the 1st stage, mild laxatives will often effect a cure; but in the confirmed stage, there is a great insensibility, & the intestines are overloaded; hence powerful doses are required. The daily administration of large doses of Calomel, instead of debilitating, always strengthens the patient.

In Chlorosis this class of remedies has signalized its powers. — I shall not give you a history of the disease, as that belongs to another province. — Doct. Hamilton has most strenuously advised the use of purgatives in this disease. A little attention shows that the principal symptom is costiveness, & perhaps it is the cause — This renders the breath fetid, produces palenes, languor, loss of appetite, weakness, & serous effusions. Dr Ham.n impressed with these circumstances, many years ago experienced the good effects of cathartics in this disease & has since had the satisfaction to find his opinions confirmed by ample experience. I can say nothing on this subject from my own practice, as I never saw a clearly marked case of Chlorosis, (a dis. extremely rare in this city), but in other diseases nearly allied to this, I have used cathartics with great success. —

Dr. Hamilton also uses them in Hematemesis, attacking females at a certain time of life. I have never imitated this practice, but have always used the remedies for other hæmorrhages. It has generally been supposed that this was a vicarious action of the stomach for the uterus, taking the place of the menses, & I am inclined to this opinion; for I have always observed that amenorrhœa was present. — Dr H. however says it is caused by a constipation of the bowels, & is certainly cured by cathartics. —

Lecture 11th November 29th 1814.

In Gout there has lately been used in France & London a quack medicine with great success - the "Eau medicinale d'Husson" Some suppose it to be a preparation of Tobacco, others of hellebore & opium, & others of Elaterium. It is a vinous tincture, resembling ale in its appearance, nauseating & bitter, having the smell of Spanish wine & some plant. - the dose is ℥ss to ℥j at night - in 4 or 5 hours it lessens the pain, & the patient wakes in the morning with nausea, vomiting & bilious evacuations; fever & irritation are diminished, a moderate diaphoresis, & a purging of bile. - It is at all events a drastic purge. - I have known it used in 3 cases with success. - The 1st was a Frenchman, who was in the most violent pain I ever witnessed; in the evening he took a dose of this med. & a short time after, nausea & a very copious purging ensued; followed by a profuse diaphoresis; - the next morning he was well enough to leave his room. he had no return of the dis. for 6 months, when a similar attack occurred & was relieved in the same way, since when he has had no return. - the 2d case was attended by Dr Physick, Dr Kuhn & myself & was a case of retrocedent gout. - 40 gtts brought on vomiting & purging, & cured the disease. - the 3d case was a patient of Dr Wistar's, in whom the result was the same. Dr Jones has collected 2 or 3 hundred cases from different Physicians attesting the utility of this med. some of them from men of great respectability, Sir J. Banks, Sir Geo. Baker &c.

It is unquestionably one of the most efficacious medicines ever used in Gout. its decided efficacy has lead to an investigation into the Pathology of Gout. - It is an old practice to purge in Gout, & continued the universal one, till prohibited by Sydenham from mere hypothetical principles - The' Dr Sydenham admits that the patient feels no pain during the operation, & if repeated, may be relieved; yet he forbids it, & it was accordingly abandoned, & the paroxysm allowed to expend itself. I could show the concurrence of the testimony of all the Physicians from Hippocrates to Sydenham in favour of purgatives in this disease. - But enlarged by the authority of this great physician, the majority since his time have abandoned the old practice, & allowed the paroxysm to expend itself - It appears to me that the example of Sydenham in this instance has been extremely mischievous, as it caused the desertion of a practice calculated to relieve or overcome the disease. It is not my duty to enter minutely into the history of the disease; if it does not originate in, it is at least connected with a certain state of the Stomach &c, which indicates a disease of the alimentary Canal. Thus the precursors of a paroxysm are flatulency, acid eructations, indigestion, depraved appetite, nausea, burning sensation in the stomach, & obstinate Constipation - It may seem extraordinary that a disease whose regular seat is in the extremities,

should be so closely connected with the stomach &c. but I could easily show it not to be irrational. Whether correct or not, the practice is at all events warranted by experience. It is not sufficient to produce merely an evacuation, but the intestinal canal is to be wholly emptied. This will sometimes put an end to the paroxysm; but generally successive purges are necessary; my practice is to give a very large dose of Rhubarb & magnesia every day or every other day. If this practice is not uniformly successfull, it is more so than any other; and if it does not always cure, it mitigates the violence of the paroxysm, & renders the patient much more comfortable.

As this differs very materially from the generally received practice, it is necessary to add some other reasons in its favour than my own experience. I could prove it from reason, & from the testimony of authors: If the disease be accompanied with the symptoms above enumerated, there is no doubt of the correctness of the practice. We have been too prone to a superstitious awe & to dread to attack this disease. The first step towards success is to lay aside our fears, & subject it to the usual remedies.

The disease is always removed or abated when a spontaneous Diarrhea or Dysentery comes on. Thus Hippocrates says, it can never be cured while the bowels are constipated, unless by the providential occurrence of

a dysentery - and the same author adds, that the best effects are perceived from a profuse discharge, or as he emphatically terms it, "a melting down of the bowels". Nor would it be difficult to adduce many other authors to advert this efficacy. The confession of Sydenham is truly curious; he says, it is suspended by diarrhoea, & the only means to restore the paroxysm, which he supposes essential to health, is to check the diarrhoea, an the paroxysm "comes thundering back on the extremities". Nothing can be more conclusive than this confession. We have already said it was not a new practice, but time will not allow a retrospect. We will only state that the practice was pursued by the Greeks, Romans, Arabians, & all the Europeans after the revival of letters. All authors previous to Sydenham speak of them either with enthusiasm or with the greatest confidence - Their purgatives were all of the drastic kind, as Scammony, Jalap &c. for Senna, manna &c were not known before the discovery of America, & the Neutral salts are the products of Chemistry - We do not however hear of any evil consequences, so much dreaded by Sydenham & his followers. See Hoffman -

Great as was the homage paid to Sydenham, it did not wholly abolish the practice of purging in Gout; thus Dr Cheyne informs us, that during his time, many practitioners had so little deference for Sydenham, that they did not scruple, in a fit of the gout, to administer active cathartics.

Even Sydenham admits that during the ope=
=ration of purgatives, the patient suffers but
little pain, and if the cathartics be repeated,
the paroxysm may be stopped; but he sup=
=posed it dangerous to allow the disease to
leave the system in any other way than
thro' the ~~interstices~~ extremities.—
Almost all the remedies of celebrity, both
of regular physicians & of empyrics, are com=
=posed of articles powerfully cathartic. Most
of them contain Scammony as a principle
ingredient. It also appears, from the ex=
=periments made to ascertain the ingredients
of the Eau medicinale, that many powerful
Cathartics & particularly the Elaterium or
Cucumis agrestis were very successfull in
many cases of Gout; the elaterium is con=
=fessedly the most powerful Cathartic we
have. — From all the above reasons, I think
we are entitled to conclude that cathartics
are safe and efficacious medicines in Gout.

Nearly allied to Gout is Rheumatism;
indeed it is often difficult to distinguish
them from each other. — Rheum. is gene=
=rally produced by exposure to cold &c. but
Gout arises from no evident cause; Rheum.
has no preceding or premonitory symptoms, &
we have seen that Gout always has. Rheum.
limbs are not red like gouty ones; Rheum.
attacks the robust & active; Gout the debili
=tated, and inactive — Rheum. is seated in
the larger & Gout in the smaller joints; each
remits, but Rheum. regularly & gout irregularly —

Acute Rheumatism is a purely inflamma-
-tory disease; hence V.S. & cathartics are in-
-dicated. — But it sometimes lasts for months
and the strength of the patient is diminished,
yet the arterial action remains increased,
and V.S. will only moderate it for a time,
affording merely a temporary relief, & increa-
-sing the excitability of the vessels. — Under
these circumstances, cathartics are of the
greatest advantage. — No two diseases
alternate more frequently than Rheum.
and Dysentery or Diarrhœa. — On this fact
Richter has built his hypothesis that Dys-
-entery is nothing but a Rheumatic or
Catarrhal affection of the bowels. —

In Dropsy, particularly ascites and
anasarca, purgatives are highly recommended.
In Hydrothorax, they do not promote
absorption, & are generally injurious, as
they are in all affections of the chest, as in
Asthma, Pneumonia &c. — Even in Pleu-
-risy, they are not to be used to any extent.
I now speak of active purging, & not of kee-
-ping the bowels regular, which is high-
-ly necessary in all these diseases.
They are however of the greatest utility
in ascites and anasarca; Sydenham
gave a drastic cathartic every day, unless
the debility was too great. he thought
the laxatives useless & even injurious.
I think his practice was correct, & the
cathartics used should be those formerly

called hydragogues, as Jalap, or a combination of Jalap and the Cream of tartar. I have often obtained from this union both a cathartic and a diuretic effect. They reduce arterial action and promote that of the absorbent system; they stimulate the excretories of the intestines, & produce an afflux of fluids to them.

Dropsies are also often caused ~~by~~ or promoted by diseased enlargements, or obstructions of the liver, spleen &c. Cathartics by stimulating these organs, restore them from their torpor to a healthy action & thus effectually cure the Dropsy.

Lecture 12th. November 30th 1814.

To conclude the subject we have been treating, I will now call your attention to some of the Neuroses or nervous & spasmodic diseases.

Chorea Sancti Viti. It is sufficient to say that we have long been in the habit of referring this disease to debility, or loss of tone in the system, & hence it has been treated by tonics & antispasmodics. It is only of late that a new mode of treatment has been introduced. — Dr Hamilton, conceiving that the spasmodic affection was only symptomatic of Constipation, & deserting his former opinions as erroneous, altered his plan of treatment accordingly. His first object was therefore to remove the constipation; for this he admin.d purges regularly & in moderate doses; he began this practice with Caution, but finding it safe, he followed it more boldly, & the success of his practice has warranted the correctness of his opinions. Tho' I do not wholly adopt Dr H's theory, I can say however, that I know no chronic disease, which is so curable by any plan of treatment, as Chorea is by purging. My practice is limited, but cases are related in the late European journals confirming Dr H's practice. —

In Chorea, there are two distinct stages; in the first, the stomach and intestines retain their susceptibility, & mild purgatives will often effect a cure, or rather, prevent the full formation of the disease. But in the 2d,

the alimentary canal is insusceptible of impression except from large and powerful Cathartics — These should be given in such a manner, as that the last may maintain the former, & never allow the impression to subside entirely. Thus a series of purgatives is necessary; otherwise relapses will be the consequence. The Patient of course, & his friends must be prepared for obedience & tedious perseverance. The cure is slow & imperceptible, & seldom is completed in less than 3 or 4 months. Within 10 years past, being physician in the Dispensary & almshouse, I have perhaps seen more cases of this disease than any other practitioner in the city during the same time — I have had 6 or 7 confirmed cases under my care, two of whom were completely cured by cathartics, & the rest much relieved. I had not a fair opportunity of trying the plan on these, as either they were discouraged, or my term of attendance expired. — The first case I cured was a boy 12 years old, a case of long standing, and all the tonics of the Materia medica had been exhausted on him. he was cured by continuing the cathartic plan for 6 months. Thus you must not be discouraged, if the cure is not performed suddenly; months are necessary, & a total revolution in the system — Sometimes tonics are necessary to confirm the cure, but I never saw a cure without purgatives. —

Nearly allied to Chorea is Hysteria. — As its name imports, it is supposed to arise from affections of the Uterus. Its paroxysms begin with spasmodic action of the alimentary Canal, which is communicated to the brain. Yet its connexion with the menstrual flux and its dependence on the genitalia, show that we are right in saying that it is caused by affections of the genital system; but how the Uterus & ovaria are affected, & how their disease produces the effect on the alimentary Canal & brain, we cannot explain. —

The predisposing causes are a great mobility of the system, depending generally on its plethoric state; to reduce which low diet is necessary. — The most powerful tonics have been employed; but I am inclined to think this practice erroneous. This disease, in my opinion, as well as all others of the Class Neuroses, is seated in, or intimately associated with the alimentary Canal. Thus its symptoms are pain in the abdomen, flatulency, constipation at one time, & at another nausea & purging, acid & fœtid eructations, &c. —

For this opinion I have the greatest authority; but I practised it long before I saw Dr. H's work — Dr H. says he has not often seen nausea & purging in pure hysteria; but their presence would not deter him from purging. he then relates a number of cases, showing the success of his practice. — I myself have not been disappointed in my expectations; my success has been great, tho' my experience is but small. —

I have also called in the assistance of the fatid and tonic remedies, but merely as subsidiaries. I never use them in the commencement, but only after the plethora &c are subdued. Active purges are necessary to produce moderate dis=charges, (the intestines having lost their susceptibility) & should be continued, until the evacuations become natural. I prefer Calomel & Jalap.

In Epilepsy I have used cathartics with more success than any other medicines; tho' the practice is not original in me, yet no one has carried it to the same extent. Epilepsy is connected with a nobility of the system, from irritation in the intestines. thus it is produced by worms, by the sordes in Dysentery, by poisons &c. by repelled eruptions, & very often by obstinate constipation. My practice is not only to evacuate the intestines, but to continue the Cath.cs from day to day, unless imperiously forbidden by circumstances. By these means I have completely cured two cases, & relieved several others; & I believe that, if submitted to this treatment, it would no longer be one of the opprobria medicorum. I cannot learn that the practice has been carried to the same extent by anyone else, either in Europe or in this Country. In the year 1809, in an inaugural thesis I had prepared, & which I read to the Med. Society, I laid down the whole pathology of this disease, as supported by Dr. R. but being obliged to write on Hydrophobia in defence of the request of Dr Rush, I did not offer this thesis to the public till some years after, in Eclectic Repertory

Tetanus. — This is only an acute and aggravated form of the above diseases — Each of the 3 last has sometimes taken on the tetanic form. It proceeds from various causes, but often depends much on the alimentary canal, & is universally accompanied with disorder of this part of the system. Thus even when it proceeds from a wound, nausea, anxiety &c are experienced.. Bites of venomous animals, vicissitudes of atmosphere, violent substances taken into the stomach, as Cocium &c — Children are very apt to be affected with it from ardent spirits. also from a vitiated state of the stomach and intestines; Constipation &c. — It is also sympathetic with bilious fevers, as Dr Rush testifies in the Yellow fever. — The alimentary canal, if not the seat of the disease, is at least always disordered — — In one species this is fully established; in the "Trismus Nascentium", from retention of the meconium. — Nor do we want for direct proofs of the efficacy of cath.cs. in the other forms. In Genuine Tetanus from wounds, the practice has been warranted not only by Dr Hamilton, but by many others in late periodical journals. —

What I have said on this subject must of course be wanting in perspicuity, but it does not belong to this Chair to enter minutely into the history of diseases; my only object was to offer my own particular opinions on Cathartics. —

Lecture 13th December 1st. 1814.

Individual Cathartics. I state above that cathartics varied in their strength, & were accordingly divided into laxatives and purgatives. but either effect may be produced by any cathartic, by augmenting or diminishing the dose; of course I shall not adopt the distinction, but propose to speak first of the vegetable and then of the mineral Cath.s. I do not know, but this division may be equally liable to criticism, but having adopted it in emetics, I retain it here. I shall only call your attention to those, which are decidedly efficacious.

The first in the catalogue is the Oleum Ricini, or Castor oil; obtained from the seeds of the Ricinus communis, or Palma-christi, which is a native of the W. Indies, but grows well in this country. The seeds are variegated with dark & light stripes, like the animal ricinus or Tic, from which the plant derives its name. — The seeds have been long known as cathartic, but were rejected, as their envelope was extremely acrid: and it was only about half a century ago, that it was discovered, that the oil was an excellent cathartic & free from this defect. — It was first used in the Colica Pictonum of the W. Indies, & is obtained by cold expression, decoction, or thro' the intervention of fire. — the first is the mode used in Europe, & the 2d & 3d in the W. Indies. — The cold expressed oil of the shops, filtered, makes a very clear & pleasant oil.

Perhaps the best mode is to boil the seeds in O.O. water, & skim off the oil, which is without taste, and can be kept a long time without becoming rancid - This is a mild but certain cathartic. It does not stimulate or gripe & is admirably calculated merely to open the bowels in sedentary & costive habits; for most others, particularly the resins, are apt to increase costiveness, & also lose their effect by habit; whereas Ol. Ric. is said to increase in power by habit, & always to leave the bowels in a loose state. -

In Colica Pictonum its use is too well known to need particular attention here; but we cannot trust to it where large evacuations are required; for it will immediately thro' the intestines, bringing with it only the more fluid parts, and leaving the indurated faces. - Were I to resort to it in such cases, I would give it some hours after a dose of Calomel.

It is said to pass thro' without being changed and to lessen the irritation in the intestines; but this I much doubt. -

In Dysentery; in its first stages I prefer other cathrs, as Calomel & Rhubarb, but in the advanced stages I am fond of the following;

℞. Ol. Ricini ℥i - Gum Arabic ℥ij - Sugar ℥j - Laud. gtt XL - Mintwater ℥ij - M. this forms the oleaginous mixture, and the dose is ℥ss every one or two hours. - this preparation remains in the stomach better than pure oil. -

From its mildness, oil is much used in

in hæmorrhoids, hæmorrhages, calculus, parturient women, &c is particularly adapted to Children. The dose of oil is ℥j. for an adult, & for the younger Children a teaspfll. — It is usually taken in ardent spirits, but this is obviously improper in many cases; the French take it in Coffee. In Senna tea in the proportion of 3 parts of tea to one of oil, it is less nauseous. — When no better way is convenient, it may be taken in Sugar & water, washing the mouth before & after with brandy or vinegar; Or, in form of an emulsion with mint water, sugar &c. —

Castor oil has acquired some reputation as an anthelmintic, but I do not know that it has any other property, than as a purgative. It answers very well after a dose of Calomel.

When the ol. Ric. cannot be obtained, an emulsion of the seeds of the Palmachristi is an excellent substitute — but if the seeds are rancid, it is a very unpleasant & harsh medicine.

Olenum Olivarum is a mild, quick & certain laxative, & has all the properties of the preceding besides being much less offensive. There are two cases in which it is particularly useful, in certain poisons, & in Colicy affections of children. I have given a tspfll every hour to very young children — it is too much neglected. —

I now proceed to some more powerful cathartics

Senna — the leaves of the Cassia Senna, which grows in Persia, Turkey &c — it was once brought exclusively from Alexandria, & was hence called Senna Alexandrina; the leaves are smooth, bitter, pointed &c. — The Italian & that growing in

Jamaica is less powerful; the leaves are less pointed, and mixed with sticks & stems. The Barbary Senna is of the same inferior quality. ~~It~~ It griping effect may be diminished by Carminatives as Coriander, &c & more effectually by Ginger or Cardamom. As it depends on the resin, it is prevented by infusion in water. It is now never employed in substance, but yields its power very readily to water, but the water should not be allowed to boil, for the active parts are volatile. Senna is hardly ever used alone, but is combined with Manna, Salts or Cream of tartar. thus, ℞. Fol. Senna. & Sup: tart. potas. (or Sulph. Soda) aa ℥ss. in a half pint of water; let them simmer till reduced to ℥j, & then add sugar &c - the Sugar has all the properties of Manna & is equally laxative. Infusion of Senna forms an excellent enema.

Cassia Marylandica possesses nearly the same properties as the Cassia Senna, & the dose is about the same.

There are many others indigenous caths but for these I will refer you to Dr Barton's work, & will only mention two of them.

The Podophyllum peltatum or May apple, called also Mandrake, Ipecacuanha &c - the fruit is esculent & pleasant, the leaves are poisonous, and the root cathartic. dose X to XX grains. - it may be combined with Calomel, X & X grs. It is said to have the property of bark in intmts, but I know nothing of it. The time to collect it is in the fall, as it is inert in the Spring.

Of all our indigenous cathartics, the extract of the inner bark of the Juglans Cinerea, or butternut is far the most valuable.

— The inhabitants of the Northern & Eastern States require less doses than the Southerners - this applies to all medicines, & the doses are 1/3 less. — —

+ Dr Physick says that Jalap alone is very apt to nauseate & be thrown up, & surely this combination will puke. E.D.

++ Active purges are injurious in Hydrothorax & in all diseases of the chest. — & in the secondary stages of hydrocephalus they can be of no service. —

See above. p. 60.

the dose of this extract is XX grains, which purges
actively. Its efficacy is increased by combi-
nation with Calomel, X grs of each. it is strongest
when collected about the month of June.

As very analogous to these, & particularly to
the Pod. pelt. I will here mention Jalap.
It is the root of the Convolvulus Jalapa, which
grows in Mexico, Jalapa, whence its name, in
Veracruz, Florida, & it is said, in Georgia &c.
The root is employed; it has but little smell,
& taste, is of a striated appearance, & affects the
fauces with a slight sense of astringency.
It is a very powerful cathartic, but its power
is said to reside in the resin, the gum being
merely diuretic; recent experiments however
show that this distinction is not correct.

Triturated with the crystals of tartar, small
doses will operate, & no griping is produced;
even combined with cream of tart. without tri-
turation I have found these effects from the
union of the two. — Cream of tartar ℥i with 15
grains of Jalap proves an excellent cathar-
tic in Dropsy. & Jalap & Calomel aa X grs is
a powerful purge, particularly recommen-
ded in the commencement of bilious
fevers.

The median dose of Jalap alone is from 40 to 20 grs.
Cullen recommends it triturated with sugar for
Children. — Dr Atkins says grs XV. Jalap with
2 or 3 of Ipecac has double the cathartic effect
of Jalap alone, & does not gripe —

As a hydragogue, Jalap has long been known,
& was termed the "Panacea Hydropica", & I believe
it is entitled to the praises bestowed on it; but
is applicable only to Anasarca, ascites &
earliest stages of Hydrocephalus. —

Rhubarb is obtained from the Rheum palmatum, the root of which is used. — The Turkey Rhubarb is the best, & comes to us in small pieces with perforations in their centres, of a bright yellow colour, striated with white, aromatic, & of a styptic taste. That from China comes in barrel-ger masses, is less aromatic and more cylindrical. Rhubarb is a mild cathartic and an astringent, thus giving tone to the stomach & at the same time that it evacuates the contents of the alimentary canal. —

Combined with Calomel it forms the best cathartic in the early stages of Dysentery, & after it has purged actively, I have used with great benefit the following ℞. Pulv. Rhei grs XXX. Ipecac grs XV. — Opii grs iv. Ol. Cinnamom. gtt v. M & f. pill. x. — S. 1. q. 8. h. — this will often relieve the tenesmus and griping.

In Diarrhoea Rhubarb has long been famous, first as a cath: other as a tonic), particularly if combined with opium & Ipecac. —

It is well adapted to chronic diseases, Hypochondriasis, hysteria, Dyspepsia &c. and joined with Calomel, to all bilious diseases. I do not know that it is at all inferior to Jalap, except that it remains longer before it operates. — When combined with the neutral salts, a decomposition takes place, & the product proves a mild laxative. All that we know concerning this decomposition is that the Rhubarb becomes red.

In Jamaica, it is celebrated, but its efficacy

is very much increased by the addition of Calomel, and after the lymphatic system has been strongly excited by this combination I give equal parts of Rhubarb, aloes & soap, in such quantities as to keep the bowels open.

As its Colour is detected in the urine, it has been supposed to be diuretic, but I doubt whether it has this property.—

For complaints of Children it is an excellent remedy; for a child 1 year old, grs X. is the dose, for children in the week grs iij or iv. but in so young Children oil is best.— Dose for an adult ℈j to ℈ij. As anthelmintic it is said to have some virtue, but I suspect it has no other than its purgative power.—

It yields its virtue to alcohol, wine or water,— & a common family medicine the Spiced Rhubarb is prepared in this way.

The Spirituous— ℞. Rhubarb ℥j— Cinnamon ℥ij Nutmeg ʒi— Cloves ʒß— White Sugar ℥vj. Spirit of Cinnamon ℔ij— This is to be placed in a dish, & the spirit burnt away.— dose half a wineglassful. for an adult. & a teaspoonful for a Child.— The Aqueous; ℞. Rhub.— Cinnamon, & mace, aa ℥ij— Cut them up & put them into a pint of water, & simmer down to ⅓. & then add Sugar — & spirit enough to keep it from fermenting. This is excellent for Children, & in Dyspepsia &c.—

Of late Rhubarb has been used externally in ulcers; when these are very irritable opium is joined with it, p.a.— Rhubarb & Ipecac p.a. are said to be a cure for warts.—

Rhubarb is now cultivated in this Country, & owes does not appear inferior to the Turkey R.t but care is necessary in preparing it; & the plant should be at least 6 years old, before the root is taken; if 12, the root will be much better.

Closely allied to Rhubarb is Aloes, which is the inspissated juice of the aloe perfoliata, which grows in the South of Europe, in Asia &c There are three varieties, the Socotorine, the hepatic or Barbadoes, & the Caballine aloes. It is a warm purgative, and passes through the stomach and small intestines without making much impression upon them, & acts only on the large ones & especially the Rectum. hence it is apt to produce hæmorrhois & ought never to be used in this, or any other disease of the Rectum — from its action on this part, it has been used as an Emmenagogue, and is proscribed in pregnancy. — The old physicians supposed it to have the properties of bile, & to be useful in obstructions of the ducts by supplying the place of this fluid.
Dr Cullen says 2 or 3 grs will produce as much effect as 15 or 20, but this is not true 2 or 3 grs will gently open the bowels, but larger doses produce griping &c. — median dose from 2 to 6 grs.
Dr Cullen says that aloes ought never to be combined with any other purgatives; but this is mere speculation. In fact, except in obstinate constipation, aloes is seldom used alone; its utility is much increased by union with Calomel, Gamboge, Scammony or Rhubarb. — It forms the basis of most

Stalagmites Gamboyioides.

of our empyrical cathcs as Anderson's pills, Lee's antibilious pills, Hiera picra so much used as Carminatives, Warner's Cordial, used in gout, &c &c.

As it is very bitter, & remains long in the intestines before it operates, it is a good anthelmintic. The best remedy for Ascarides is an enema of ℥j of Aloes in half pint of water. — It is used in alcohol for checking haemorrhages, & as a wash for indolent ulcers.

I was induced some time ago to make trial of the inspissated bile of an ox — 3 or 4 grs t.d. in pills, and never had so prompt an operation from any other medicine. Richter, I have since found, recommends it highly. it is admirably calculated to relieve Costiveness.

Scammony — a milky exudation from the Convolvulus Scammonia, which by inspissation becomes Concrete. That from Aleppo is the best, & is of a shining black colour — it consists of a gum & a resin, ~~has~~ a pleasant smell, & a styptic taste — It has been much used as a cathartic, and externally for herpes & ringworms. dose as a cath.c. from 3 to ½ grains — But it is so violent that it is not used except in Combination. It is said to grow in Suffolk county, N. Jersey. —

Gamboge, a gummi resinous Concrete, said to be derived from the Coddam pulli, but others deny it; — It derives its name from the place, whence we obtain it; it is of a deep yellow colour; & a violent cathartic & Emetic; hence it was used in the Yellow Fever by Dr Rush & others, in order to produce an artificial Cholera morbus, the disease being at one time supposed to be merely bilious, but since found to be a gastric affection.

3 or 4 grs. of gamboge with ½ of calomel make a very powerful & efficacious cath.c. — it is also used in combination with the sup. tart. potash —

It has been recommended in Dropsy. Also in Tania, where 15 grains are ordered in the morning, and if the worm do not appear in a few hours after, the dose is to be repeated — but this practice must be extremely hazardous.

Colocynth — the Cucumis Colocynthis — the produce of Syria — it resembles a gourd — it is intensely bitter, & a severely drastic purge. Dose from 3 to 6 grains. it is generally employed in combination with others as Calomel, Rhub.t &c. to hasten their operation; in mania, apoplexy &c. An infusion of it is said to be anthelmintic, but is too violent for children.

Elaterium, the Cucumis agrestis of Linnæus, the momordica Elaterium of others — commonly called the wild Cucumber. It is the most violent cathartic, the Mat. Med. affords, & sometimes produces bloody evacuations. — But it is slow in its operation, unless promoted by others. It is often emetic — it stimulates the whole system, & raises the pulse very much, producing as it were, an artificial fever. — Dose from ½ gr. to grs iij. — it was formerly much used, but now not at all. —

Lecture 15th December 3d 1814.—

Mineral Cathartics. There are but few, & these, with some exceptions, are but of little value. The most important of all the mineral cath.cs is the submuriat of mercury or Calomel, which is applicable to almost all diseases. Where purging is required, there is hardly a case, in which it may not be given either alone or in Combination.— It has the singular property of rendering milder the drastic cath.cs, & of giving force to weaker ones. It is destitute of taste, & minute in bulk; hence it is peculiarly adapted to Children. There is a popular prejudice against its use for children, but I am convinced, that its operation on them is milder than on adults.— However I never give it, untill the infant is old enough to distinguish tastes, & to resist what is nauseous.— X or XX grs for an adult, & not less than gr vj. for a child over two years of age. Large doses create less nausea, pain or griping, than smaller ones.—

Sulphur. a simple combustible substance often found native. The preparations of sulphur are numerous, but the best forms of using it are in its native state, or the Flowers of Sulphur Ziorij. Like aloes it acts on the large intestines, but being mild, allays irritation, & hence is used in hæmorrhoidal affections.— It is often used combined with Cream of tartar in form of an electuary.—

Sulphur is much used in Costiveness; & was once much esteemed in Dysentery, but is now laid aside in this disease. I have seen it very useful in Colicky Cases, Connected with Gout or Rheumatism.

In Cutaneous diseases it is used internally and externally; thus in Psora - Ung^m. Sulphuris is rubbed on, & the powder is taken in purgative doses. but as the ung^m. produces a very unpleasant odour, other applications have been substituted - Sulphuric acid ℥ss. with lard - makes a good ointment or with several ℥j of water, a wash, equally as efficacious as the ung. Sulphuris, & without smell.

In tinea Capitis, the best unguent I have used is Sulphur ℥j - Lard ℥j - Salammoniac ℥ij. n. p^r ung^m. — — Butter saturated with Salt is also an excellent remedy for tinea Capitis.

Rosenstein says that in repelled eruptions nothing is so effectual in restoring the eruption as Sulphur. - thus it is used in Epilepsy from this Cause. — — In Gouty and Rheumatic affections of the intestines, it is useful both as a purgative & a diaphoretic.

It was once a favourite remedy in Coughs, Catarrhs, pertussis, pulmonary Consumption &c, & was called the "Anima pulmonum". I cannot say whether there is any truth in this, as it is not supported by any very weighty authority.

In Cramps, grasping a roll of Sulphur has been recommended; I have succeeded by pads of Sulphur worn on the part, & the Flor. Sulph. given internally.

In Paralysis Sulphur has been recommended, indeed I now rely more on purges in the

(D P Lydick prefers giving it in milk, & thinks it admirably adapted to infants of children — E B.)

15 or 20 grs t. infant every hour.

& Laud gtt ij half hour before paroxysm.

(See Bark) D P.

treatment of this disease than on any other medicines, but I use more active ones than Sulphur. Sulphur has been used to correct inordinate mercurial action, but I think I have found it wholly inert in this respect —

It has been used in intermittents. Grange in Batavia cured intermittents by giving ℥ij - in a wine glass of brandy an hour before the expected paroxysm. - I have used it with success after bark & arsenic have failed, & think it an important acquisition in treatm.t of intmitts.

Nearly related to Sulphur is Carbon. it is an antiseptic - but is not much used except externally — I some years ago gave it internally for an ulcerated mouth, in which I suspected the disease to arise from the stomach; the fetor of the breath was immediately destroyed, & a cure soon performd. A tablespoft twice a day is mildly laxative and at the same time tonic; hence it is used in Dyspepsia, Costiveness, acidity, pyrosis, hysteria &c. & may it not be of use in the low stages of Typhus? - It is remarkable that while using Carbon, the fæces have no fœtid smell, & the odour of the breath is also corrected. —

Magnesia was introduced into medicine by the Comte de Parma in Rome. it is found in Nature in form of Carbonate, but this creates flatulency, & therefore the Calcined is preferred. this is particularly the case in children during the mouth, for I have seen the medicine, thro' neglect of this correction, aggravate the disease, for which it was given.

Equal parts of calcined magnesia & lac sulphuris form a powerful cathartic, & an excellent remedy in bilious complaints; dose of this mixture a teaspfll.

During the first two or 3 months after birth, children are very subject to gripings &c & nothing relieves them more effectually than this preparation; ℞. Calcined magnesia grs XX. Rhubarb grij. ol. anis - gt iv. Laudanum gt. iv. - Sugar ʒi. Water ʒj. M. - this is an excellent carminative. - Of the Lithontriptic powers of magnesia, hereafter.

The Neutral Salts are intermediate between laxatives and purgatives. As they operate copiously without exciting much irritation, they are very useful in the phlogistic diathesis, but if more active purges are required, these must yield to Calomel &c - but after the more powerful ones have been used, these will serve to keep the bowels open, & if combined with antimonials, will prove diaphoretic.

Glauber salts or Sulph. Soda is most used. dose ʒi - for a child 3 or 4 years old ʒfs. - - It is often combined with cream of tartar &c. As a Febrifuge the following ℞. is a good one: Glaub. Salts ʒij - - Cremt. Tartar grs iij - Lemon juice or vinegar ʒi - Water ℥viij - M. ℥fs. q. s. h. - this opens the bowels & is diaphoretic. -

Sulphate of Magnesia or Epsom salts. dose ʒi. - this has no advantage over the last, except being more apt to be retained on the stomach. - hence it has been recom: in Colica pictonum. -

Phosphate of Soda - this is a newly introduced medicine - the dose the same. - it is not so unpleasant as the 2 last, but I think it is not so active - it produces an intolerable thirst. -

Rochelle salts - tartrite of potash & soda made by adding soda to the solution of the supertartrit of potash. - it is a pleasant medicine; the dose is the same - ℥j —

I have now finished the Cathartics, tho' I have omitted many of the less powerful ones. —

Diuretics. The urinary discharge is increased in two ways; 1st by increasing the secretory action of the kidneys, & the 2d by exciting the absorbent vessels. hence diuretics are of two kinds, as they produce the one or other of these effects; both however act primarily on the stomach. — The action of diuretics is much influenced by the state of the skin, as the secretion of the kidneys & that on the surface are in an inverse ratio; thus cold increases the power of diuretics. Hence in giving these remedies, heat should be avoided, and whatever may tend to produce diaphoresis; the patient is to be kept out of bed, & if admissible, cold is to be applied to the surface. — Thus the most violent strangury will often yield to cold applied to the pubis, to cold pediluvium, & walking barefoot on cold marble.

Diluent drinks also increase the diuresis; but in some cases, it has been doubted, whether these means were proper; as in Dropsy; apprehensive that they would increase the serous effusion, physicians formerly forbad all drink; & cases are recorded of success from this abstinence; but they are few, & the general failure of this plan has caused it to be laid aside. — It is a most painful task to resist the cravings of thirst, & the theoretical views, on which the practice was founded, appear to be false. Thus Dr Cullen says, that abstinence from drink, by diminishing the action of the

kidneys, allows them to become torpid and inactive. — The modern practice is to give large quantities of diluent drinks. — Water, impregnated with some acid, as a weak solution of Supt. Art. potass. — By the use of these diluents alone, Dropsies have been cured, in proof of which we have the authority of Sir George Baker (who introduced the practice) of Sir Francis Milman, & of Dr Cullen; but the fact is so well established, that it would be useless to defend it here. —

Diuretics display their best powers in all the forms of Dropsy, but how they act, has been a subject of dispute; whether by increasing absorption, or exciting the action of the kidneys. I think there are two classes, some stimulating the absorbents, & the others the kidneys to action; some object to this, that the water cannot be evacuated from the cavities merely by an increased action of the kidneys; but I maintain that whatever tends to diminish the force of the circulation, increases the absorbent action, & thus the diuretics acting on the kidneys, indirectly influence the absorbents.

Besides Dropsy, Diuretics are used in all urinary diseases; in Nephritis whether from Calculus or other causes, in partial or total suppression, in virulent gonorrhœa &c. —

Also in all diseases of the lungs, in Catarrhs, Asthma, Phthisis, & all chronic affections of the pulmonary organs; "Dommiby

morbis pectoris, ad urinam spectandum" was formerly the adage, but this practice is not now so general. Digitalis is indeed used in these diseases, but not with a view to its diuretic effects. —

The number of diuretics is immense, but few of them are powerful, & all are uncertain; their uncertainty may be owing to a want of attention in administering them, or to their being universally endowed with other powers; thus if the cathartic or diaphoretic power should overbalance the diuretic, the urinary discharge is lessened, being in an inverse ratio with that from the skin or bowels. —

In administering diuretics, attention must be paid to the state of the system, as some of them increase, and others diminish action. — There are 3 sets of them; the 1st are the cooling laxative, the 2d the stimulating, & the 3d the narcotic or sedative. — Of the 1st class are the neutral salts, which are all diuretic, but none very remarkably so except the Supertartrite of potash; a very valuable medicine in dropsy, but is peculiarly adapted to Ascites & Anasarca, & to febrile dropsies. — It is best when combined with Jalap. — Drs Home & Fowler say that its hydropic power is equal & in some cases superior to that of Digitalis; but the two medicines are adapted to very different cases, & cannot, I think, be compared together. — It certainly often reduces the dropsical swelling very suddenly, & in these cases evacuates large quantities of water by stool, at the same time increasing the action of the urinary organs.

When given dissolved in a large quantity of water, it is merely diuretic, but if in small quantity

effusion, or combined with some other purgative, it acts as a hydrogogue cathartic. — this last mode is the best, and during its operation, abstinence from drink should be prescribed. The dose as diuretic merely is ℥i in a quart of water daily; & as a cath.c — ℥i or ℥ij with Jalap grs XV. —

Potash either pure or in the state of carbonate. The ashes of certain plants are much used in some countries; ℥ss of carb. potass. in water is actively diuretic, and sometimes cathartic. Dr Cullen (who is a sceptic with regard to medicines) is in favour of this, & admits that he has found it eminently diuretic, but adds that it has sometimes disappointed him; but this may be said of every other medicine. The cases to which potash is adapted are those accompanied with dyspepsia & the evolution of an acid in the stomach — it corrects this acid, but its efficacy in curing the disease is much increased by the addition of gentian, Columbo, or other bitters.

Among the milder diuretics is the Spiritus nitri dulcis, or Spiritus ætheris nitrosi of the Dispensatory. It is a solution of ~~alcohol~~ nitric ether in alcohol — It often proves powerfully diuretic, but the common dose of gtt. XXX is too small; ℥ss may be given to an adult — It is particularly adapted to children, not only in dropsies, but also in strangury, dysury &c — for an infant 8 or 10 days old, gt. viij or X. for a child one year old gt. XXX. —

The application of a bladder of warm water to the pubes is an excellent remedy in the strangury of children, which is a common disease. — Also cataplasms of roasted onions or garlic to the pubes. —

among the milder diuretics is the apium petroselinum or parsley - Every part of the plant may be used, but I have only employed the root, from which I have derived some advantage in Dropsies. It was a favourite remedy with Dr. Rush; - Dr Caldwell cured a case of ascites by it, which had resisted the usual remedies, & tapping had been resorted to. But it is more applicable to the common cases of suppression of urine, & to relieve the strangury from blistering; for these purposes it is a very valuable medicine. I give it in a strong infusion, to an adult in the dose of a wineglassfull & in proportion for child.

We now proceed to the Stimulating diuretics, and at their head place the Tincture Cantharidum. This is given in very different cases & with opposite indications; I have given it to restrain a great flow of urine, and to increase the action of the kidneys - If it be given in small doses as gtt. viij or x - in plethoric habits, or where action is pretty high, it produces strangury; but ℥ss in a feeble system is diuretic. In a case of atonic dropsy, I gave ℥iij a day & produced a most copious flow of urine. I am not alone in this practice, tho' many entertain very different views; Dr. Cullen mistrusts its diuretic powers.

It has been used in Paralysis of the bladder, in Gleet, & protracted gonorrhoea &c - (See Roberton) - In Leucorrhoea it is highly extolled by Dr Roberton, but Dr James & myself have tried it in large & small doses, but have failed. Dose gtt. XII to XV - & increase to ℥ss. &c - oft. Pulv. Cantharid. gr. iss.

Next to Cantharides is the Oleum Terebinth. or Spts of Turpentine. It has not however been used with much success in Dropsy - gtt. X or XV. t.d. are diuretic but larger doses go off by stool.

Nearly allied to this is the Balsam Copaiva, an exudation from the Copaifera officinalis. It is not much used in Dropsy, but in Nephritis, Leucorrhœa, gleet &c it is much employed, tho' I am not very fond of it. —

In Gonorrhœa I give it in the very commencement & during the inflam^y stage, not regarding the symptoms of inflam^n viz. ardor urinæ, chordee &c, all of which it relieves - the use of it in Gonorrhœa is not a new practice, but it was usual to give it in small doses & only in the secondary stages. the dose I use is gtt. XL morning and night in wine. a cure is effected in 3 or 4 days, & sometimes sooner. One caution however is necessary, very low living & absolute rest are essentially requisite for a speedy cure. - There is but one inconvenience in the use of it, which is that it purges very actively, & its efficacy is lost or much lessened; Opium will prevent this, & if not, it must be omitted for 2 or 3 days. I sometimes use it in this form. ℞. Bals. Copaiva ℥ss. - G. Arabic ℥ij - Dulc. Spts of Nitre ℥ij - Water ℥iv. - M. - If it purges, add laudanum ♏i - and if it is offensive to the stomach add Comp. Spts of lavender ℥i or ℥ij - m. (℥ss. q. t. h.) -

This plan is more convenient than injections, and produces no strictures, nor swelled testicle, & leaves no gleet behind it, & is more prompt: As to its mod. operandi, I know nothing. One would not suppose that so stimulating

an article would allay heat, pain &c as this always does; but no mode of reasoning is more fallacious than this; for who would suppose ℞ Spt. Turp. would be applicable to burns?

You will be often disappointed on account of the inferior quality of the B. Cop. in our shops; as it is little more than Spt. Terebinth.

Polygala Senega - is an active and diffusible stimulus, and acts on most of the secretory organs; thus it is expectorant, sialagogue, emmenagogue, diuretic & diaphoretic. - The root only is used - As a diuretic it has long been known, and Dr Lennant, who first introduced it, knew only its diuretic power. - It was at one time highly eulogized by in Dropsies; thus Sir Francis Milman speaks of it as one of our best med. - I have never seen any remarkable diuretic effects from it; indeed it had lost its reputation, but is now regaining it. - I suspect it has been too promiscuously employed; and I am inclined to think it best adapted to those cases of universal Dropsy from weakness of the absorbents and connected with a cachectic state of the system. - The efficacy on the lymphatic system is promoted by its union with Calomel.

Dose is grs X or XX - - Tho' Dr Lennant gave it to the extent of grs XXX - -

The Senega is also used in Cynanche Tracheali; As an antidote for the bite of the Rattlesnake (for which it was introduced by Dr Lennant) it has lost its reputation.

It is used as an expectorant in Pneumonia,

-2 grains of the dried squill is equal to X of the recent.
See above, page 34. —
5 grains is the Emetic dose. —

particularly in the Pn. Senilis; also in the last remains of a Pleurisy &c. Combined with Savine, in Chronic Rheumatism.

Lobelia Syphilitica is also a diuretic — it creates nausea & vomiting &c. Dr Pearson found it wholly inadequate to the cure of Syphilis; but as a diuretic it may probably be of service in Gonorrhea.

But a more important diuretic is the Scilla maritima, which is also expectorant and emetic. — (See under head of veget. emetics) p. 34. — It is eminently useful in ascites and anasarca; tho' from my own experience I should say it was more so in Hydrothorax. My mode of giving it is 2 grs of dried squill, with 1 gr. Calomel in pills — morning & night, or oftener. Dr Cullen added some neutral salt as nitre, supposing that this would convey the squill more directly to the urinary organs; but this is a mere notion. If the Calomel purge, add opium. — The mouth being affected by the calomel is an auspicious symptom, particularly in Hydrothorax. The squill lowers the pulse and diminishes arterial action more than anything else, except V.S., more even than Digitalis. — It is somet. combined with Corros. Sub. & I. min. but Calomel is equally good. —

Dr Home gave squill and nitre aa gr x daily, to excite vomiting, and cordials at night. But Dr Cullen, a cotemporary and rival of Dr Home, loudly condemns this practice, and contends that the

diuretic effect is lost by vomiting or purging, because the medicine is thus prevented from entering the circulation. He therefore recommends such doses as will produce no effect on the stomach. I suspect the truth lies between them, & that nauseating doses are preferable. — Squill acts particularly on the bronchial glands, & is therefore recommended in Asthma &c.

Helleborus niger – Dr Ferrier speaks highly of the diuretic powers of Bacher's tonic pills in Dropsies – (See Med. hist & reflect.)

We come now to the 3d. class of diuretics, viz. the narcotics; the most interesting of which is Digitalis. The Digitalis purpurea is the one in common use, but the D. lutea is said to be stronger & to possess all the valuable properties of the former, without its injurious ones. The Digit is not a native, but grows well in this country; it is a luxuriant plant, 2 or 3 feet high. The blossoms appear on the second year, and are purple, and on their inside elegantly mottled. The leaves are used, and should be gathered when the blossoms are just appearing; the largest and deepest coloured are to be chosen, and to be dried in a warm room, & in a current of air — when crisped they are to be pulverized according to Dr. ..., & kept from the light; but the leaves are generally kept whole, & I think this is the best way to preserve their strength. —

When given in a full dose, the Digitalis exhausts the powers of the body, lowers the pulse from 75 to 40 or even 30. & the pulse becomes small, tremulous and vibrating. Sickness, anxiety, vertigo, dimness of sight succeed — If the dose be very large, puking is excited, & a greater degree of vertigo or coma & a little more puts an end to life. Its effects however are not uniform; the pulse sometimes remains full, & is irregular, giving the sensation of jerking or convulsive action. — Sometimes the largest dose will not prove emetic —

In some, a considerable length of time will elapse without its producing any apparent effect, and then suddenly its powers are developed & sometimes so much so as to occasion some alarm for the life of the patient; & tho' it be discontinued, its effects will remain for several days, being in this respect analogous to Mercury. — This is not a very frequent occurrence, but sufficiently so to render us cautious in the use of the med.

The position of the body has some influence on the effects of this medicine. This was first observed in the Edinburg ..... Journal, & in the first case which attracted notice to this circumstance, the pulse was, in the erect posture, 100. sitting, 75 — and in the recumbent, 40. Experiments have been repeated, & are recorded by Dr Hamilton & Dr Beddoes, which prove that this idiosyncracy is not uncommon.

It is disputed whether it be a stimulant or purely sedative — I have placed it among the latter, but its 1st effect is certainly stimulant; this however is very transient, & the pulse is soon lowered, both in strength & frequency, and languor & debility soon follow. (Experiments of Dr Moore, in his inaugural thesis, and confirmed by Dr Saunders of Edinburg.) these show that its first effect is stimulant, but they only regard the arterial system, & it is to be regretted, that the action of Digit. on other parts, has not been equally enquired into.

By botanical affinity, it is allied to the Stramonium, Nicotiana, Solanum, hyoscyamus, and other narcotics of the most deprefsing kind, and accordingly it also diminishes the mobility of the system. To this property and to its diuretic power must be attributed all its effects.

— Dr Physick thinks it safer to begin by gr ij., for gr j would almost kill him, as is evident from the effect, which xij gtt. of the Tinct. taken at 3 intervals, had on him —

Digitalis is given either in powder, Tincture or Infusion. The infusion is made thus: of the dried leaves ℥i. Water ℥viij — reduce by simmering to ℥viij. & strain — then add ℥j. of some aromatic spirit. dose to an adult, ℥ss. t. d. — The powder is given in doses of 1 grain morning & night. also given in pills, alone or with some aromatic.

The Tincture according to Dr Darwin is made by digesting ℥ij of dried leaves coarsely powdered, in ℥viij of proof spirit for several days. this is the saturated tincture & the dose is about gt. XV. but is often increased much further. — The other formula is only ℥j of leaves to ℥viij spirit. — If the leaves be very good, this will be nearly a saturated solution; of course the dose will still be XV. gtt. which may be increased, if it is found to be weak.

Doct. Withering, who first introduced this medicine, is of opinion that when the diuretic effects are desired, as in Dropsy, the Infusion is to be preferred; & where the narcotic power is required, as in Pulm. Consumption the powder or T. is preferable. — But in my opinion, this distinction is frivolous.. It is said also, that the powder is more apt to produce noxious effects, because the repeated doses are accumulated, not being carried off by diuresis; but this is mere conjecture.

In the exhibition of this medicine, the dose is to be gradually increased, but with caution, and the pulse must be carefully watched, as its action is suspended for a time and then becomes violent — The dose may be augmented every other day, and repeated two or three times a day: proceeding thus, the patient will sometimes take X times his 1st dose;

– Dr Beddoes prefers opium, to counteract the effects of digitalis.

I have given as much as ℥ij of the Sat.d Tinct in twenty four hours.—

Notwithstanding all our caution, its violent effects will sometimes appear, & remedies are necessary to counteract them. If the dose has just been taken, an emetic will be proper, but when the symptoms become alarming, ether, vol. alkali & cordials are necessary. Sinapisms to the ankles, & frictions with hot brandy &c.

Application of Digitalis to the cure of diseases.

At one time this medicine was extolled in the widest range of diseases and at another almost discarded from the materia medica. This fluctuation still exists and arises from its being given in forms of disease, to which it is totally inapplicable; or from its being rendered inert by some fault in its preparation.

Its efficacy in Dropsy is least disputed. Dr Withering, who first introduced it, asserts that so far as the cure depends on the evacuation of water, so far Digitalis may be depended on. Darwin, Sir George Baker, & Percival also extol it. It was Dr Darwin's opinion, that it was best calculated for dropsies arising from intemperance and debauch. He gave it combined with the bark, & a grain of opium at night; this plan he continued for weeks without intermission. Opium is an excellent remedy for the disease produced by drunkenness, & no doubt Dr D's practice was a good one.

Dr Ferrier of Manchester has also used it very considerably but his result is not so flattering; In 29 cases treated by Digitalis, 11 were cured, 7 died, 2 were relieved, & 9 remained stationary: whereas out of 43 cases treated by Cream of tartar, 33 were cured. — Dr Currie condemns it, on the ground that dropsies are caused by debility & therefore this must increase the disease. The weight of authority however is decidedly in its favour; indeed if there be any fact in medicine so well established as to be above cavil, it is the superior efficacy of Digitalis in Dropsy.

But the state of the system must be attended to - when a general strength, & a high degree of arterial action exist, Digitalis will be injurious, unless preceded by V.S. &c. Thus Dr Withering says, he failed in persons of tense fibre and great natural strength; but was uniformly successful in weak persons, with pale countenancy, low pulse &c. hence he recommends Squills and purgative doses of the crystals of tartar, to reduce & prepare the system for Digitalis.

I think it equally useful in all the forms of Dropsy; in Ascites, Anasarca or Hydrothorax; the general opinion is that it is best adapted to Hydrothorax, & not to Ascites; but I am very certain I have had less success in hydrothorax, than in any other form, & now seldom use Digit. in it, but trust to Squill & Calomel.

Dr Hamilton, author of a Treatise on Digitalis, is directly opposed to me, and asserts, that he never saw a case of hydrothorax, however advanced or desperate, which was not speedily relieved by Digitalis. It would be well for humanity, if one half of this eulogium were true. —

In Hydrocephalus, Digitalis has been given but with little success; if it can be useful, it must be in union with Calomel.

But in the Anasarca consequent to Scarlatina, which is very obstinate and occasionally dangerous, Digitalis is eminently useful - As it proceeds from debility, tonics are generally used, but are not to be compared with Digitalis in efficacy. The same applies to anasarca following the Erysipelas. —

Digitalis has been said to be occasionally useful in dis-
eases of the urinary organs. Dr Withering recom-
mends it, but I doubt its efficacy very much. I think
it has but little relation to the kidneys & acts ex-
clusively on the lymphatics; thus it never promotes
the urinary discharge, unless where dropsical ef-
fusions exist; hence it never proves diuretic when
given in Pulmonary Consumption. –

In some cases, its only good effect seems to be
diminishing arterial action. Thus Dr Ferrier &c****
Dr Currie says, it acts like a charm in allaying
arterial action, & therefore is a most valuable acqui-
sition, being often a substitute for the lancet &
sometimes highly superior to it. –

It is said to be of use in all hæmorrhagies,
but particularly in hæmoptysis & menorrhagia.
Dr Ferrier relates many cases of the former treated
successfully by Digitalis. Also Dr Currie, Dr Drake &c.
But I am not a convert to the propriety of this
practice and can never allow it to take the place
of V.S. in active hæmorrhagies. Yet there are cases
to which Digitalis is particularly adapted.
In the active stage of hæm.ᵃ the pulse is full & hard,
& V.S. is indispensable; but after the hæm. has
continued some time, & all inflam.ᵃ symptoms
have subsided, the pulse becomes low & feeble,
the face pale, the skin cool, & the strength impaired;
yet the circulation remains too rapid, & if a cicatrix
has formed, it cannot resist the impetus, but yields
& the hæm. is renewed. In this state V.S. is for-
bidden by the state of the system, & Digitalis is
one of our best resources. —

I spoke in my last lecture of Digitalis in hæmoptysis, and said that it ought not to be administered untill the force of arterial action had been diminished either by the hæmorrhagy, or by V.S. & even then I think it by no means equal to Ipecac, Sac. Sat. or Squill. But it is well for us to be possessed of a variety of remedies of the same properties, so that we may have recourse to one, when the others may be forbidden by some peculiarity of constitution or other circumstance. Digitalis is also said to be efficacious in uterine hæmorrhage, but here again V.S. must precede it, and I doubt whether it be adapted to this form of hæmorrhage. I saw one case, in which the flow was most profuse during the operation of the medicine. The disease appears to require something to constrict the vessels, and we have many medicines better suited to this than Digitalis, which instead of constricting, increases the relaxation, and of course must be injurious. The periodical profuse discharges of females are almost always ~~truely~~ hæmorrhages and are instantly alarming, whereas genuine menorrhagia is not immediately so. Remedies may check the former, but do not restrain the latter, as it is a secretory action; thus in true menorrhagia little else is to be recommended during the flow than rest, anodynes, &c. and during the intervals, tonics &c.

Besides hæmorrhagies, Digitalis has been applied to many other diseases, and even to some of the most inflammatory, as fevers &c. Thus Dr Ferriar seems to suppose it even

more than a complete substitute for the. and recommends it in inflammatory febers, in which he tells us he has used it with success. Dr Currie also speaks of it with equal confidence in inflammation of the brain, heart, lungs &c. he also recommends it in acute Rheumatism, and indeed in all the Phlegmasia. Dr Mosman says Pneumonia is as surely cured by Digitalis, as intermitt. are by cinchona. By a reference to periodical publications I could swell the number of authorities to a great extent, but the medicine is now laid aside in these cases, and nothing is more certain in medicine, than that it is inadequate to supply the place of the.

In Pectoral affections, particularly in Phthysis pulmonalis, Digitalis has very valuable properties. Darwin, Ferrier, Drake all recommend it highly. Dr Drake, who has used it very extensively, says its success is very considerable; that many confirmed cases have been cured by it, & where death is inevitable, it prolongs life, & lessens pain. He details 15 cases of well delineated, of confirmed Phthysis, 9 of which were cured, one relieved, & 5 died.

Dr Fowler also speaks highly of it.

Dr Beddoes says, he hopes that Phthysis will be as certainly cured by Digit, as agues are by bark.

Dr M'Jennys of Plymouth (England) had extraordinary success — In 77 cases, of whom 24 were recent, and the rest confirmed, and in the purulent stage, 45 were cured, 22 relieved, & 10 died. In those cases in which the Dig. did not lower the pulse, it was of no service, & its utility was always commensurate with its effect in reducing the pulse.

Many other authors might be quoted in favour of the use of Dig. in Phthysis.

Notwithstanding all these praises, Digitalis has lost much of its reputation, and indeed is almost out of use in Phthysis. This is running to the opposite extreme; no doubt it is useful in some cases, but it is no less true, that its effects are precarious & uncertain. Its value in Phthysis is much less than in Dropsy; — In irritable and weak habits, where a slight spitting of blood exists, attended with cough, pain in the breast, and debility, bleeding is often inadmissible, and Digitalis, in such doses as to keep the pulse about the natural standard, is said to be very successfull. But not so in the 2d Stages. When no purulent matter has been expectorated, the disease is curable, & Digitalis with proper diet, and other remedies will succeed. but in the last stages neither Digitalis nor any other medicine can do more than barely palliate. — Dr Kinlake gives 14 cases of the recent kind, half of which were much benefited by Digitalis. — Dr McLane — Dr Reid &c.

Besides Consumption, it has been recommended in the declining stage of Pneumonia; it relieves the obstinate cough, & may be given with the Pectoral mixture. also in asthma. Angina Pectoris, dyspnoea &c. It has been used in Epilepsy, Mania &c. I think it might be useful in some cases of mania, but preceded by V.S. & cathartics.

Lecture 20th December 13th 1844.

Lithontriptics or Antilithics. Both names should be retained; for some medicines must exist, which are calculated to dissolve the stone; and others to prevent or correct the tendency of the system to the formation of calculi, & to relieve the symptoms when present.

The manner in which calculi are generated is not understood; all that we know of it, is that when a nucleus exists, stony concretions are deposited on it. – Nor do we know more of the diathesis on which calculi depend; its connexion with Gout is very evident; indeed the urine of gouty people uniformly deposits a calculous sediment. – Thus the voluptuous, the debauched, the studious and sedentary are liable to both these diseases.

It is however clear to my mind, that these scourges of human nature, & reproaches of our art have their primary seat in the stomach. Various substances enter into the formation of calculi – 1. Uric acid – 2 Phosphate lime 3. Phosphate magnesia & ammonia – 4 oxalate of lime – 5. muriat of ammonia – 6. magnesia 7. phosphate of iron. 8. Urea – 9. silica (10 Cystic oxyd) & animal mucus or adipocere. –

Calculi have been divided into 4 classes;
1. Uric. having for basis the uric acid, or the urates.
2. Fusible. – composed of phosphate lime or phosph. of magnesia & ammonia –
3. Mulberry – of which the oxalate of lime is the constituent.
4. Bone earth – – the basis of which is phosphate lime.

Experiments have shown the practicability of dissolving these calculi, & that each species has its proper solvent. – Thus the Uric are soluble in a solution of potash & soda, so weak that it may be held in the mouth & swallowed with ease.

– (Dr Physick sounded a boy & felt the stone as distinctly as he ever felt one. Dr Wistar also felt, & an operation was agreed on, but it being summer, it was determined to defer it till the fall, & Dr P. meanwhile ord. the patient the alkaline water – the very first dose relieved the pat., and after continuing it sometime, all the symptoms vanish, & the pat. remained perfectly well several years after, since which Dr P. has not heard from him.
In another Case, Dr P. was equally sure of feeling a stone; 6 months after the pat. died of a fever, & on examination no stone was found in the bladder. In both these Cases the stone could not only be felt, but when struck with the sound, the noise could be distinctly heard. In this last, the stone was certainly dissolved, but in the 1st it may have been dissolved, or encysted, as occurred in a case in Eng. – A Mrs. ... pretended to have discovered a cure for the stone, & attracted so much notice, that a committee of Surgeons were appointed to enquire into it. A patient was given her, who was soon relieved, & the stone was supposed to be dissolved; but the patient dying soon after was examined, & the stone was found to have insinuated itself into a sac, formed by a kind of hernia of bladder, & was thus prevented from falling on the neck of the bladder, or giving rise to any uneasy symptoms. Dr P.)
(Calculi may be encysted in two ways; 1st it may stop as it is passing thro' the two coats of the bladder at the =

the 2 & 4th. or the phosphates are dissolved in nitric or muriatic acid, so diluted as not to irritate the bladder. The 3d. or those having for basis the oxalate of lime are soluble in nitric acid or a solution of carbonate of potash or soda.

Gastric juice is the most powerful solvent of every species of Calculus; but whether we possess any article, which will dissolve them while in the bladder is yet doubtful. I am inclined to think such effects have been produced; Mr. Everard Home relates a case in which a Calculus was by some means dissolved & disappeared, & Dr. Physick has met with a similar instance. — Still endeavours to produce this solution by injections into the bladder must be extremely ambiguous, as we must first know the composition of the Calculus; thus we must proceed empyrically, trying one after the other. —

That there are substances, which taken internally, may dissolve Calculi, I infer from these facts; 1st. We have solvents for the stone when out of the body, & these may be given in sufficient quantity without prejudice to the system; & 2d. Some of these lithontriptics reach the bladder unchanged, or at least without a material alteration. Nor is this inconsistent with the assertion I formerly made that no substance was taken into the circulation without being changed & assimilated; for when the substance arrives at the excretions, & is out of the sphere of vital energy, it reappears in its former state, thro' the medium of a chemical decomposition. —

= entrance of the ureters; or 2. the interstices between the muscular fibres (which are arranged in a reticform manner) may gradual yield to the pressure of the stone during the violent efforts of the muscular fibres to overcome any obstruction to the passage of urine, whether from the stone, or from stricture of the urethra, and thus a complete sac may be formed, into which the stone will insinuate itself & for a time give no further trouble. Dr. Physick.)

Moreover, there is probably a direct communication between the stomach and bladder; thus nitre, turpentine, garlic &c will appear in the bladder 20 minutes after being taken into the stomach. Dr Darwin supposes this to be accomplished by a retrograde action of the abrorbents; but this hypothesis is a very lame and imperfect explanation; for if they do take on this retrograde action, it is only the effect of disease —

Mr E. Home (London) has made some interesting experiments on this subject, which are related in the Lond. Philos. Transactions.

See Ecl. Repertory. Vol. 2 & 3. —

Lecture 21st December 18th 1814.

Of the medicines of this class, the first that will claim our attention is the Carbonic acid; tho' long used, its utility however was not well illustrated till the work of Dr Dobson appeared about 35 years ago; since which Drs Saunders & others have maintained its power of dissolving Calculi. Doctors Pearson, Faulkner & Percival by their experiments prove that Calculi are soluble in carbonic acid, in malt liquors &c. The next point was to ascertain that this med. could be carried from the stomach to the bladder so as to dissolve the calculi there; this they very speedily proved; for the urine after taking it for some time precipitated lime from lime water, and was found to be capable of dissolving calculi. This was confirmed by the numerous experiments of Dr Priestley. — Pyrmont & Spa waters also dissolve them, & it is asserted that the same effect is produced by the urine of those who have drank these waters.

The evidence of the beneficial effects of malt liquors is scarcely less irresistible. Cyprian says of 1400 patients, whom he cut for the stone, not one had been an habitual drinker of malt liquors. Sydenham is equally decided in their praise. However I shall not insist on their solvent power of this or of any other medicine; our acquaintance with this subject is imperfect, but enough is known, to warrant us in pursuing the subject; for allowing that we have no solvent as yet known, we certainly have many medicines, which arrest the growth of the calculus, & mitigate the symptoms, when it is present.

– (If the solution of Carb. pot. be taken alone, it cannot be in doses of more than ℥j. & then should be enveloped in mucilage – if the acid be added before it is taken, the acrimony is destroyed & ℥i may be taken – W. R.)

As to the use of carbonic acid in these cases, I know but little from my own experience; but as a palliative, it would be the highest degree of scepticism to doubt its efficacy. I have used the seltzer water, but the aerated alkaline water is more commonly used; and when neither can be procured, a good substitute may be found in the effervescing draught. A teaspoonfull of carbonat of potash may be dissolved in water, & lime juice or vinegar added; and during the effervescence, this is to be drunk; perhaps it would be better to swallow first the solution of carb. pot. & then the acid, so that the effervescence might take place in the stomach; this is to be repeated 5 or 6 times a day.

The doctrine of an acid being the origin of calculus has rendered the practice of giving alkalies very common; they were however at one time laid aside, but were revived about 30 years since. Carbonat potash from grs XV. to ℥iij may be given in solution at a dose, & repeated morning & night. It produces great gastric distress, which may be diminished by uniting with it mucilage of g. Arab. still it cannot be long continued without producing vomiting &c. The common mode of using it is in solution supersaturated with carbonic acid, & obviates its bad effects on the stomach. Dr Beddoes directs ℥ij of carb. potash to be dissolved in a small quantity of water, & this to be impregnated with fixed air by Nooth's apparatus. After this ℥xii or ℥xxxiv. may be taken daily.

As a palliative the soda is equal to potash; & is also given in watery solution saturated with carbonic acid. — It is also used in simple solution; ℥i to ℔ij water, & ℥i or ℥ij to be taken daily. — It may also be freed of

— (the milk sometimes disagrees with the stomach, & mucilage of gum arabic may be substituted.
The milk should be new, & perfectly free from acidity, otherwise the lime will be neutralized, & the effects of the limewater lost. — To prevent this, Dr Physick always directs it to be taken in boiled milk; for if the slightest degree of acid exists, the milk by boiling coagulates & thus detects the acid. —— During the use of the limewater, the patient is to abstain entirely from acids.)
(E.B. from Dr Physick) —

th water of crystallization and be made into pills; ℥ss or ℥i to be taken daily. — Both alkalis are given in the form of soap, the purer kinds as the Castile being preferred. each pill may contain grs iij & 8 or 10 of them taken in the day.

Aqua Calcis has been much employed; I have frequently used it in Nephritis Calculosa, & mostly with great advantage. It is confessedly one of our best palliatives for the Stone; & in large quantities relieves entirely the symptoms for a time; thus Detlaen mentions an instance of a person who took 800 quarts in 6 months, & continued free from pain &c for 3 or 4 years, tho' the Calculus remained. — Not less than a pint ought to be taken daily; but in grand I generally order a wineglassfull 4 or 5 times a day in milk. — Limewater is of great service in all cases, where there exists a gastric affection, Dyspepsia, acidity &c. It is eminently useful in all the Cachectic diseases. Also in Diarrhoea, in the last stages of Dysentery; In Leucorrhoea I do not know a more valuable remedy than this preparation; ℥ij of bark in a quart of limewater; let it stand for 2 or 3 days & strain it. of this a wineglassfull 4 or 5 times a day. —

It is also used externally in Tetters, particularly tinea capitis; In Gleet & Leucorrhoea as an injection; & as a wash for ill conditioned ulcers, particularly fistulous ones. —

Limewater is prepared by slaking ℔ss of lime in a close vessel & adding 5 or 6 quarts of water; this is to be shaken occasionally for 3 days, then filtered & bottled.

Limewater is a valuable med. in checking vomiting.

Mineral acids; both muriatic and nitric have acquired reputation as lithontriptics or solvents. Lately Mr Copeland has made comparative trials on the two, & gives the preference to the nitric. Among his cases, 2 certainly are related in which a solution of the stone must have taken place. One by muriatic acid, gtt XXX t.d. & the other by nitrous acid gt. XL t.d.; persevering a long time in the use of them. The sediment of the urine was submitted in both cases to chemical analysis, & was found to contain the exact proportions of the constituents of calculi. — During the use of these acids, opiates are to be given occasionally to mitigate the pain, and costiveness is obviated by laxatives. When the treatment produces gastric distress, spirit & water will relieve it. — From all his trials, Mr Copeland was induced to give a decided preference to the Nitric acid. —
(Dr Hyrick mentioned that the Sulphuric acid had been spoken highly of in Calculus.)

— (Dr Physick thinks it a very inert & useless medicine; & has never experienced the least benefit from it in any disease whatever; tho' he has used it more or less for many years. - E B)

† Dr Ferriar says he has always derived advantage from urea urs. in nephrit. compl. & never found it necessary to give more than gr V. with opii gr. ss. to quatenus in die — the usual dose, he says, nauseates & loses their precise effect.

He has found it very successfull in cases of hæmaturia in delicate females, where he had reason to suppose the hæmorrh. was from the kidneys. — he thinks it acts specifically on the kidneys —

See Med. Inst & Reflect. —

Lecture 22d December 16th 1814.

We now proceed to the more purely antilithic med., which prevent or correct the lithic diathesis, and alleviate the symptoms of stone, when present; but have no effect in its solution.

Among these are the Bitters, particularly the gentian, quassia, centaury, lupulus & more especially the Uva ursi — Tea also indeed it is asserted, that in China, where so much tea is used, Calculus is unknown. The use of bitters is a very ancient practice, & they were once considered as solvents, but they have not this power, and merely relieve the symptoms of calculus. Their modus operandi is not known; Dr Cullen supposes them to act by destroying an acid, but this is not probable; perhaps it is by diminishing the acrimony of the urine, and the sensibility of the bladder. —

Arbutus uva ursi. a shrub resembling the myrtle, and growing in all the Northern States, & in the vicinity of this city, it is an evergreen, & the leaves, the only part used, are very astringent. When given internally, hardly any sensible effect is produced, & even in large doses, affects the pulse very slightly. It was given by Galen as a diuretic, and is now much used in all calculous & urinary affections. Some say it is a lithontriptic, but the cases in support of this opinion, are not very well authenticated. — I have seen it given in Stone & with relief, but I think it is better adapted to Nephritis; & having but slight sensible properties, it may be given in almost every state of the system, & in every form of nephritic disease. — Dose grs XX. t.d. & increase to ℥i. t.d. It is also used in Infusion & Decoction, but I prefer the powder as more certain and less disagreeable. A grain of opium should be taken every night, as Dr Ferriar recommends, in painful

nephritis, while under the use of the uva ursi. Dethlaen recommends it in ulceration of the kidneys or bladder, in strangury, ischuria &c &c.
I have used it with great benefit in more than one case of Catarrhus vesicæ. It is also said to be useful in Diabetes; of this I know nothing. It is strenuously supported in Leucorrhœa, gleet &c; but I have not been very successful with it. the Leucorrhœa is in many instances a most unmanageable disease. It is a vitiation of the catamenial discharge, & its seat is in the uterus & not in the vagina as is generally supposed; it is therefore to be treated by general & not by local means. Injections are useful by cleansing the parts & washing out an acrid discharge; but must not be relied on solely. the uva ursi internally will be useful as a tonic &c. — There is however a form of fluor albus, situated in the vagina, which is curable by injections alone. — Tho' I have been disappointed by the uva ursi in Leucorrhœa, yet many (as Dr Barton) contend for its great efficacy. In Phthysis Dr (Gower) gave it in doses of grs XX t.d. with advantage; he was lead to use it in this disease, from its good effects in hectic from dis. of the bladder &c.
Humulus Lupulus or Hop. As a lithontriptic the infusion of Hop has long been celebrated; & it is said to be one of the most prompt & certain solvents of stone out of the body. A strong infusion, a pint daily, relieves pain &c. the Tincture is far less effectual. — — Sydenham, who was afflicted with Calculus, asserts that small beer always prevented his passing bloody urine &c. many gentlemen of this city derive great advantage from Porter; but most physicians of the present day think malt liquors injurious. We shall speak of them more fully at another opportunity.

– Allium porrum.

Daucus Carota or wild carrot. In many of the urinary diseases, the infusion of the root or seeds of this plant is one of our best remedies. The wild is more powerful, yet the cultivated is diuretic; they are the same species, varied only by cultivation. The root is preferable, & a pint of the infusion is to be taken daily: by perseverance in this plan, complete cures have been effected.

Alliaceæ — Of these the allium sativum or garlic is the most powerful. It operates actively on the urinary organs & is a highly stimulating diuretic; as we should conclude, from its reaching the kidneys unchanged. — It is said to be very useful in Dropsies. It was formerly used as a lithontriptic, but has lost its reputation as such. It has however of late been again introduced, & if we can credit the accounts given of it, it is a very valuable medicine. It is taken either in substance, or in expressed juice. a half a garlic at a dose, or half a tablespoonfull of its expressed juice. The leek is equally efficacious & is used in the same manner.

Magnesia has been very lately introduced as an antilithic, & we owe it to Mr. Brande of London. (Dr Chapman read 4 cases, published by Mr. B. in Lond. Philos. Transact., which show the superiority of this med. over the soda or potash; the calculi were of the uric kind. — he supposes that it acts by neutralizing the acid in the stomach, & thus diminishing the formation of uric acid in the kidneys.)

— Or if sweating can be induced, it is only partial, & proves rather injurious than beneficial. —

Lecture 23d December 19th 1814.

Diaphoretics. This name is in common language restricted to those agents, which increase the insensible perspiration, & sudorifics to those which increase the sensible: but no difference exists between them, except in degree of power, & the mode of administration; I shall therefore comprehend all under the name of Diaph.s.

Diaphoresis, being merely an increase of a natural action, may be produced either by direct stimulus to the exhalents, or by increasing the tone or action of the arterial action. Diaphoresis however is not a necessary consequence of increased arterial action, for a constriction of the exhalents may exist, which must be conquered.

These med. are therefore divided into three classes: viz. 1. those which increase arterial action, as opium, vol. alkali &c. 2d those which directly stimulate the exhalents, as warmth applied to the skin; & 3d those which produce relaxation, as antimonials &c. –

However different these med. may be, yet they all unite in reducing morbid action; they diminish arterial action 1st by evacuation of serum; 2d by abstracting the blood from its ordinary route of circulation, & 3d by overcoming constriction of the surface.

As it is of importance in many diseases to produce diaphoresis, some rules may be properly laid down, for the exhibition of these med.

1st Confinement to bed is essential.

2d The pulse & temperature of the skin are to be carefully watched. If the pulse be too active or the heat very high, diaphoresis cannot be induced, untill they have been lowered by V.S. which should not be omitted (unless contraindicated).

3°. Diluent drinks; unless the stomach be very irritable and after the exhibition of antimonials; for in these cases they might induce vomiting. The temperature of the drinks must depend on that of the surface; if the skin be very hot, cold drinks are preferable.

4°. The bed linen & shirt &c should be frequently changed; for filth prevents perspiration &c.

5°. Guard against a sudden suppression of the perspiration; this is of the utmost importance.

6°. In the low stages of disease, avoid purging during the administration of diaphoretics; for it might suppress the perspiration by a revulsive action, & by rendering necessary a frequent exposure to cold.

7°. As diuresis and diaphoresis are in an inverse ratio to each other; we must avoid during the use of diaph.cs., those circumstances, which increase the secretion of the kidneys.

8°. When long continued perspiration is required, as in Chronic Rheumatism, flannel should be substituted for linen next the skin; without this, it will be impossible to keep up an uniform & constant perspiration. The old practitioners used to employ flannel in all cases, but it would be very injurious in all acute or febrile affections; in these a frequent change of clean linen is highly comfortable & refreshing.

Diaphoretics judiciously applied are a very important class; they determine to the surface, remove congestion, obviate constriction of the minute vessels, increase absorption, promote the cuticular discharge, & diminish morbidly inc.d action by lessening the quantity of the circulating fluids. As they are so powerful, they ought not to be wantonly trifled with, & the popular prejudice in their favour in every disease, is in some cases highly injurious; thinness of the blood often lays the foundation of obstinate diseases.

In Remittents & intermittents. these fevers naturally terminate by a sudoresis, & hence these remedies are indicated by Nature to put an end to the paroxysm. They are also used to prevent the recurrence of the fit, with considerable success; When judiciously applied, they conduct the paroxysm to a close; they prevent its recurrence, & thus break the train of catenated motions on which the disease depends. As a preventive of the approaching paroxysm, the stimulating diaphoretics are preferable; but to conduct it to a crisis, the relaxing ones, as the antimonials are to be used. (or the cooling ones &c)

In Continued Fevers, it is equally necessary to exhibit diaphoretics. It was once the practice to give the most stimulating ones even in the most inflammatory fevers, confining the patient in a hot room & preventing the ingress of fresh air; with cordials &c. this only added fuel to the fire; the heat under this treatment becomes insupportable, delirium & a great determination to the brain, marked by redness of the face, inflamed & turgid eyes, beating of the carotids &c. — Sometimes there is a determination to the lungs, & coughing &c are the consequence; or to the abdominal viscera; fullness of the liver and spleen, pain in the abdomen, nausea & vomiting &c. — In this state sometimes a profuse sweat will break out, but it brings no relief & does not diminish arterial action. But when properly used, they are most important medicines in these fevers; but not untill action has been subdued by ℞. purges &c. then they come in; but the cordial or alexipharmic diaph.s are even now inadmissible, & we must prefer the relaxing ones, keeping up at the same time a free ventilation.

Lecture 24th December 20th 1814.

We concluded the last lecture by saying that in inflammatory fevers, V.S. should precede diaphoretics, & the milder ones should be preferred. They are equally successful in Typhus, & may be used in an earlier stage than in inflam^n. but even in T. caution is necessary, & in both T. mitior & gravior, they should be preceded by moderate purging, & the affusion of cold water. but I have seen very little of these fevers in this country, as they appeared in Europe. I am told they formerly prevailed here, but disappeared on the arrival of our epidemic Y.F. which has been succeeded by a Typhus of a different nature from that of Europe. Of this epidemic which has prevailed throughout our country for 3 or 4 years, & has twice visited this city, I shall now give some account; not a minute one, but a mere summary, drawn chiefly from my own observations.

This truly proteiform disease assumed almost every shape, but generally commenced with an unprecedented prostration of strength, the vital powers being apparently exhausted; alternate rigors & heat; the skin soon became dry and pale, or mottled, as if it had been exposed to cold; the features contracted, the eyes wild & glassy, & the countenance expressive of the utmost anxiety. The pulse was at first slow, and apparently depressed, but in a few hours became quick & vibrating, like the chords of a musical instrument, & ultimately sunk so as hardly to be perceptible. affections of the head came on, various hallucinations, or complete delirium, ending in a Stupor or Coma.

In other cases the disease was ushered in with symptoms of pneumonic inflammation, great pain and oppression at the chest, laborious respiration &c. from the pulse, which is at first full, strong & voluminous, we should conclude the disease to be highly inflammatory. This is its most insidious form of attack.

In others there is apparently no local determination; the first symptom being an extreme prostration; no chills or fever succeed, but the muscular power is lost; pulse, even at the first attack, irregular & quick, 140 in a minute. Soon the head becomes affected, & the patient sinks into a state of coma and insensibility. These are the most aggravated forms under which it has appeared in this city. The cases which have occurred lately have assumed a different guise, & have been much milder. They are all of the pneumonic kind; generally commencing with chill and fever, impeded respiration &c. often gastric distress, vomiting of bile, even so much as to prevent the administration of medicines; the pulse full, soft & quick, resembling that of the bilious pleurisy. A physician not aware of the nature of the epidemic, would bleed & purge — but in a day or two, it becomes a well marked Typhus; the strength rapidly declines, mind becomes distracted, or coma ensues. — The tongue & fauces are now covered with an incrustation of a dark brown colour, & dry & hard to the touch; the tongue however in some cases remained clean. — As the disease advances it becomes the true Typhus gravior. — Besides the above symptoms, the skin is parched & hot, & in the late stages dry & cold, & almost insensible; stimulants not producing the slightest irritation on the surface — growing worse for 10 or 12 hours, he dies.

In several instances the attack commences by a determination to the head - without any oppression at the breast, or difficulty of respiration, very sudden pains appear, which, after shifting about for an hour, then fix themselves in the head. giddiness, languor of mind & body succeed - the fever soon comes on, the skin becomes dry, the pulse feeble quick; even at this early stage the tongue denotes the Typhus state; an hour after the attack, it is covered with a brown crust, which soon becomes hard - In a few hours the symptoms are all aggravated, vertigo, throbbing, stricture across the forehead & eyes, vigilance not to be subdued, & at the same time a lethargy. - Delirium in various degrees from mere incoherence of ideas, to the constant utterance of the most violent expressions. If neither delirium nor coma exist, extreme dejection, constant sighing, imagination uncontrolable & conjuring up the most distressing group of phantasms &c. -

What then is this disease? I am not prepared to answer at least in a satisfactory manner; but of this you may be assured, that it is in no stage attended with active inflammation; it is a fever of a Typhus nature, but not such as have been described by Authors - On dissection an inflammation appears to have pervaded the 3 cavities, but it is not a genuine inflamn.; the parts are livid, & partial erosions are found, as if gangrene had taken place. - In the brain are found extravasations of dark blood, or effusions of perverted lymph resembling pus. - after blisters or sinapisms, the surface exhibits similar appearances. We can then have but little hesitation in declaring it to be a Typhus, with inflammation of the Erysipelatous kind. hence depleting is absolutely forbidden.

Two plans of treatment have been pursued; one by stimuli, and the other by diaphoretics; I am decidedly in favour of the latter, & all the physicians of this city recognize the good effects of diaphoretics in this disease, if used in the early stages.
An Emetic may be given in the commencement, particularly if pneumonic symptoms attend; a very gentle laxative may follow; & then the most active means of producing diaphoresis are to be immediately adopted & vigorously pursued; and the diaphoresis to be continued untill the violent symptoms abate. — Nothing has answered so well in my practice as the Dov. powder, followed after some time by strong wine whey, & hot fomentations to the extremities. Where sweating is early produced, the cure is almost certain. For topical congestion, blisters are indispensable & ought to be used without delay; they should be large enough to cover the whole pained surface. — In the advanced stage incitants are to be combined with the diaphoretics; the volat. alkali is an "ipse agmen", ~~and~~ I had almost said the "Unicum remedium". 5 or 10 grs every half hour with a plentiful use of madeira wine &c. — If the patient be rapidly sinking, vesications are to be made, but in this stage ordinary blisters have no effect; I have used the Decoct. of Cantharides & Spts. Terebinth. first introduced by Doct. Hartshorne of this city. —

Such is a brief outline of this desolating disease, which in its two visits to this city has deprived us of the services of some of our most worthy & useful citizens &c &c &c — D. Rush, D. Physick &c

LECTURE 25th December 22d. 1814.

There is another species or form of Typhus, not described by authors, which arises from long exposure to cold, and affords a decided instance of the sedative power of cold, long continued. — Cases of this kind are often brought to our almshouse in the winter, in a state of torpor, insensibility, suppression of the vital powers, loss of speech, the pulse imperceptible &c resembling very much the state of hybernation in the coldblooded animals. This disease calls for stimuli, but these must be graduated according to the remaining susceptibility of the system. — The vital powers are sometimes restored by the warm bath, or if this cannot be procured, by dry heat, with the internal use of warm cordials. If it is suffered to go on, or will not yield to these remedies, a partial reaction takes place, & the disease assumes the form of the worst cases of Typhus gravior; the tongue becoming dark & coated; the pulse quick & small; low delirium, & a dark haggard countenance, glassiness of the eyes & generally a very contracted pupil. The patient continues in this situation with little or no deviation for 7 or 8 weeks & then recovers, by the continued use of vol. alk, capsicum &c — As soon as the vital powers return, the stimulating diaphoretics may be used with great advantage —

On dissection of bodies, dead of this disease, the brain & other viscera cavities are found to have been inflamed, but very slightly so, & the inflammation was apparently more of an erysipelatous blush, than of an active or phlegmonous kind.

As connected with these fevers, I shall now make a few remarks on the use of diaphoretics in fevers supposed to originate in contagion, as typhus &c. Amongst humoral pathologists, it was supposed that the particles of virus, which kept up the disease, could be eliminated through the pores of the skin & hence their first remedies were diaphoretics. This affords us an instance of false theory leading to correct practice. They are very serviceable in these diseases, but have no peculiar or specific action; & their use is to be governed only by the state of the system.
In the exanthemata, it has always been a favourite practice to use diaphoretics; but they are often attended with so much heat & action, that not even the mildest diaph.cs are safe, until inflam.n has been reduced by V.S., Cold affusion &c as in Scarlatina.
In most of the profluvia, diaphoretics are our best remedies. Every one knows their utility in Catarrhal affections, in Coughs, in Diarrhœa &c. In all these diseases, flannel is of great importance.
More than half a century ago, Dr. Akenside maintained the superiority of diaph.cs over all other medicines in Dysentery — of late Richter has supposed it to be a Rheumatic or Catarrhal affection of the intestines, & hence that diaphoretics were the best remedies. — Without maintaining his theory, I almost entirely approve of his practice.
It is my opinion that we have been in the habit of purging too much in diseases of the intestines and particularly in Dysentery.

– the Rubus trivialis of Lin.
the running blackberry or
Dewberry.

I think the acrid matter lodged in the intestines is owing to a previous irritation producing an increased discharge from the mucous follicles, the liver &c. - Hence after evacuating the contents of the intestines by a moderate laxative, I use medicines calculated to allay this irritation & to relax the vessels of the surface. Opii gr.ss. & Ipecac. gr.ij. q.d.h. When the irritation is very great, I sometimes use anodyne injections; 4 or 5 tablespfls of Laud. with starch &c. - in the 24 hours. -

In Cholera morbus & Cholera infantum (the Summer Sickness), I have followed the same plan of treatment. The latter, one of the opprobria of our art, owes much of its mortality to the preposterous mode of treatment to which it has been subjected; what else could be expected, but that the tender infant should sink under a course of violent purging continued for weeks? Entertaining the same view of it, as of Dysentery, I begin the treatment by a moderate evacuation, & then allay irritation by opium &c. - I have found a decoction of the root of the dew-berry one of the most efficacious medicines in this disease, as well as in the diarrhœa of old people. a handfull of the root is boiled in a pint of water, & allowed to simmer - for a child, a tablespfll every two hours; it is a pleasant medicine & soon checks the diarrhœa - (More of it under Astringents.)

In Chronic Dysentery Diaph.m also used. Tho the acute disease is removed, a considerable tenderness remains; pain & griping; faeces are still fœtid; but little strength & no appetite; what is eaten is not digested; the skin is dry & parched, the face is sallow &c the blood is evidently confined to the larger vessels. - I have seen several cases of this kind, which have resisted

tonics & have yielded to Dover's powder, assisted by other means of keeping up perspiration. Same may be said of Chronic Diarrhœa, & in protracted Cholera &c. — These often depend on disease of the liver or some other of the Chylopoietic viscera, & Calomel is indicated — small doses as grs. may be added to each dose of the Dov. powder — In conclusion I will remark that the action of the alimentary canal being in an inverted ratio with that of the skin, diaphoretics must be useful in almost all diseases of the 1st vice & hence in the cure of these affections, the great utility of blisters, flannel &c. —

In the Phlegmasiæ the skin is always hot and dry, & diaphoresis is desirable; but as the heat is often very high, & the action great, such diaphoretics as reduce these are to be chosen. Cold is often the best of these, but in some cases is inadmissible; thus it would be often injurious in Rheumatism. In the acute Rheumatism, the mild relaxing diaph.s are to be used — sometimes Dov. powder; or in very obstinate cases, opium, Calomel & Ipecac; or in lieu of opium, Cicuta, or henbane may be substituted — but in some cases there are spontaneous sweats, which only aggravate the disease, which would also be the effect of artificial ones; in these, purging &c. must precede diaphoretics. —

In the Chronic state we must lay aside the relaxing diaph.s & have recourse to stimulating ones, as the vol. alkali, Sarsaparilla, Polyg. Senega, guaiacum, mezereon & more especially to Savine.

In Gout much difference of opinion exists

with regard to the use of diaphoretics; the advocates of the humoral pathology used them as the principal medicines for gout; but I consider them as mere auxiliaries, or at most in utility to purgatives — Nature indeed points out these two modes of cure, by the spontaneous termination of a fit of gout by a diarrhea, or sweat. —

Diaphoretics are also used with success in Diabetes, & cases are related, cured by them alone. Some refer this disease to the secreting organs of urine; while others refer it to a vitiated state of the assimilating organs. This last is not a modern theory, but was adopted by Dr Cullen. My own opinion is decidedly the latter, for the following reasons; 1st. Diabetes is always preceded by a gastric affection, & occurs particularly in the intemperate and debauched. 2d. These gastric affections continue in a great degree during the whole course of the disease; 3d. Animal food, which gives vigour to the stomach, is the best remedy for the disease. 4th. Dissection has detected no morbid appearances in the kidneys &c, which cannot be referred to a symptomatic affection. 5th. On inspection, disorders of the stomach, liver & other chylopoietic viscera are discovered. Thus Dr Head contended that it was a disease of the biliary system.

Of this disease there are two forms, the Diabetes mellitus & D. insipidus. The' different, they require the same remedies, accommodated only to the state of the system. The use of diaphs. might be anticipated, from their diminishing the quantity of urine; the state of the skin also indicates them; it is always singularly dry; parched & heated, or cold & scaly. The best diaphs. in this disease are the antimonials, & the Dov. powder, which last has been used with very remarkable advantage. —

In Dropsies. At one time it was usual to treat dropsies by sweating alone; the practice is now renewed on the Continent of Europe. The Cases in which diaph.s are most indicated, are dropsies, subsequent to intermitt fevers &c from visceral obstructions; these cases are attended with a small tense pulse somewhat corded, a dry skin &c. — Diaph.s by their Centrifugal power, remove obstructions & restore the equipoise of circulation between the surface & the viscera. —

Many other diseases might be here enumerated, in which this class of medicines have been found useful, but as they are less indicated in them, we shall not stop to consider them, but proceed to the individual diaph.s. —